Village of Somers
7511 12th Street
Somers, WI 53171

Village Plan Commission Meeting
Agenda
Monday, June 10th, 2024
5:30 P.M.

1. Call to order
2. Pledge of Allegiance
3. Approve Minutes of April 8, 2024 Meeting
4. Correspondence
5. Citizen Comments
6. **Land Division (Certified Survey Map):**

   Discussion and Action on Request by: Somers Gateway Center LLC, 1170 22nd Ave., Floor 2, Kenosha, WI 53140 (Owner), Devin Winter, Excel Engineering Inc., 100 Camelot Dr., Fond du Lac, WI 54935 (Agent), requests approval of a Certified Survey Map (dated April 26, 2024 prepared by Ryan Wilgreen of Excel Engineering, Inc.) to create one (1) 8.057-acre Lot, one (1) 9.428-acre Lot, one (1) 3.354-acre Lot, and one (1) 4.161-acre Lot from Tax Parcel # 82-4-222-073-0301, located in the SW ¼ of Section 7, T2N, R22E, Village of Somers. *(For informational purposes only, this property is located at the NE corner of CTH E and East Frontage Road.)*

7. **Rezone:**

   Public Hearing and Action on Request by: Somers Gateway Center LLC, 1170 22nd Ave., Floor 2, Kenosha, WI 53140 (Owner), Devin Winter, Excel Engineering Inc., 100 Camelot Dr., Fond du Lac, WI 54935 (Agent), requests a rezoning from A-4 Agricultural Land Holding Dist. to B-3 Highway Business Dist., PUD Planned Unit Development Overlay Dist., and A-4 Agricultural Holding Dist., on Tax Parcel #82-4-222-073-0301, located in the SW ¼ of Section 7, T2N, R22E, Village of Somers. *(For informational purposes only, this property is located at the NE corner of CTH E and East Frontage Road.)*

8. **Site Plan Review & Exterior Fenestration:**

   Discussion and Action Request by: Somers Gateway Center LLC, 1170 22nd Ave., Floor 2, Kenosha, WI 53140 (Owner), Devin Winter, Excel Engineering Inc., 100 Camelot Dr., Fond du Lac, WI 54935 (Agent), requests site plan review and exterior fenestration review for a fueling/gasoline service station with associated convenience store, restaurants and drive-throughs & a hotel, on Tax Parcel #82-4-222-073-0301, located in the SW ¼ of Section 7, T2N, R22E, Village of Somers. *(For informational purposes only, this property is located at the NE corner of CTH E and East Frontage Road.)*

9. **Conditional Use Permit:**

Public Hearing and Action on Request by: Somers Gateway Center LLC, 1170 22nd Ave., Floor 2, Kenosha, WI 53140 (Owner), Devin Winter, Excel Engineering Inc., 100 Camelot Dr., Fond du Lac, WI 54935 (Agent), requesting a Conditional Use Permit to allow a fueling/gasoline service station and outdoor dining in the B-3 Highway Business Dist. on Tax Parcel #82-4-222-073-0301, located in the SW ¼ of Section 7, T2N, R22E, Village of Somers. *(For informational purposes only, this property is located at the NE corner of CTH E and East Frontage Road.)*

10. Adjourn

I hereby certify that as the designee of the chief elected official of the Village of Somers, I posted this notice of the 3rd of June, 2024 Village Plan Commission Meeting Agenda in 1 public place & on the Village website.

Dated this 3rd day of June, 2024 Wendy Burnette, Clerk-Treasurer

Requests from person with disabilities who need assistance to participate in this meeting should be made to the Clerk's Office at 262-859-2822 with as much notice as possible. Notice is hereby given that members of the Plan Commission members participate telephonically. Notice is hereby given that members of the Village Board may be in attendance for the sole purpose of gathering information. A quorum may be present. However, no Board action will be taken.

Village of Somers
Proceeding from the Village Plan Commission Meeting
April 8th, 2024

1. **Call to Order**

Chairman Stoner called the meeting to order at 5:30 p.m.

Present:

- Chairman George Stoner
- Commissioner Gregg Thompson
- Commissioner Vinnie Chambers
- Commissioner Donald Boxx
- Commissioner Michael DeLuca
- Commissioner Steege
- Alternate Pat Juliana

Staff present: Administrator Jason Peters, Kenosha County Planning Luke Godshall, Kenosha County Planning Andy Buehler

Trustees present: Ben Harbach, Jackie Nelson, and Joe Smith

2. **Pledge of Allegiance**

Chairman Stoner led everyone in the Pledge of Allegiance.

3. **Approve Minutes of Feb, 12, 2024**

Commissioner Boxx moved to approve to the minutes.
Seconded by Commissioner Juliana.

Motion carried. 7-0.

4. **Correspondence**

None

5. **Citizen Comments**

None

6. **Comp Plan Amendment – Maplecrest Country Club**, 9401 18th St, Kenosha, WI 53144-7748 (Owner), David Lyon, Three Leaf Partners, 504 W Juneau Avenue,

Milwaukee, WI 53203 (Agent), requests an amendment to the land use plan map for the Village of Somers (Map 80) as adopted in the Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035 from "Park and Recreational", “Nonfarmed Wetland” and “Other Conservancy Land to be Preserved” to "High-Density Residential", “Medium-Density Residential”, "Park and Recreational", “Nonfarmed Wetland” and “Other Conservancy Land to be Preserved” on Tax Parcel # 82-4-222-201-0100, located in the NE 1/4 of Section 20, T2N, R22E, Village of Somers. *(For informational purposes only, this property is located at the SW corner of CTH H and CTH L.)*

Public comments: none.

Commissioner Boxx brings up that he has questions about the project.
rezoning, site plan and other details.
Representative for the developer Ryan Douglas mentions that they addressed the Plan Commission’s concerns from Feb. 12, 2024 about the single-family portion of the development. The density was lowered it, and the lot sizes are now a minimum of 9,000 sq. ft. The density of the multi-family development no longer needs a variance.

Commissioner Boxx asks about other variances.

Senior Land Use Planner Luke Godshall goes over the height, setback and parking variances requested.

Commissioner Boxx moves to accept the request.
Commissioner Thompson seconds the motion.

Motion carried. 7-0.

7. **Rezone – Maplecrest Country Club** 9401 18th St, Kenosha, WI 53144-7748 (Owner), David Lyon, Three Leaf Partners, 504 W Juneau Avenue, Milwaukee, WI 53203 (Agent), requests a rezoning from PR-1 Park-Recreational Dist. to R-11 Multiple-Family Residential Dist., A-4 Agricultural Land Holding Dist., C-2 Upland Resource Conservancy Dist., C-1 Lowland Resource Conservancy Dist. and PUD Planned Unit Development Overlay Dist. on Tax Parcel # 82-4-222-201-0100, located in the NE 1/4 of Section 20, T2N, R22E, Village of Somers. *(For informational purposes only, this property is located at the SW corner of CTH H and CTH L.)*

Public comments: none.

Commissioner Boxx moves to accept the request.
Commissioner Thompson seconds the motion.

Motion carried. 7-0.

8. **Land Division (Certified Survey Map) - Maplecrest Country Club** 9401 18th St, Kenosha, WI 53144-7748 (Owner), David Lyon, Three Leaf Partners, 504 W Juneau

Avenue, Milwaukee, WI 53203 (Agent), requests approval of a Certified Survey Map (dated October 27, 2023 and prepared by James D. Baker of Manhard Consulting) to create one (1) 34.005-acre Lot, one (1) 29.918-acre Lot, and one (1) 91.976-acre Lot, along with public right-of-way dedication, on Tax Parcel # 82-4-222-201-0100, located in the NE 1/4 of Section 20, T2N, R22E, Village of Somers

Public Comments: none.

Commissioner Boxx moves to accept the request.
Commissioner DeLuca seconds the motion.

Motion carried. 7-0.

9. **Site Plan Review & Exterior Fenestration – Maplecrest Country Club** 9401 18th St, Kenosha, WI 53144-7748 (Owner), David Lyon, Three Leaf Partners, 504 W Juneau Avenue, Milwaukee, WI 53203 (Agent), requesting site plan review and exterior fenestration review on Tax Parcel # 82-4-222-201-0100, located in the NE 1/4 of Section 20, T2N, R22E, Village of Somers.

   Commissioner Boxx moves to accept the request.
   Commissioner DeLuca seconds the motion.

   Developer presents details about the architecture of the buildings and materials used.
   Chairman Stoner reiterates that the stormwater storage will have to be 30 percent larger, which is confirmed by the developer.
   Alternate Commissioner Juliana brings up concerns with parking.
   Commissioner Thompson asks about the green space and landscaping.
   Commissioner Chambers asks about insulation and dumpster.

   Motion carried. 6-1. Commissioner Juliana votes Nay.

10. **Conditional Use Permit – RCG Somers LLC, outside dining** RCG Somers LLC, 3060 Peachtree Rd NW Ste 400, Atlanta GA 30305 (owner); Steven Kolber, Kolbrook Design, Inc. (Agent), requesting approval of a Conditional Use Permit for outside dining in the B-4 Planned Business Dist., on Tax Parcel #82-4-222-271-0309, located in the NE ¼ Section 27, T2 N, R22 E, Village of Somers

    Public comments: none.

    Chairman Stoner brings up some concerns about the shape of the lot.
    Developer representative confirms they are aware.
    Chairman Stoner mentions concerns about parking.

    Commissioner Boxx moves to accept the request.
    Commissioner Juliana seconds the motion.

Motion carried. 7-0.

11. **Site Plan Review & Exterior Fenestration – RCG Somers LLC** 3060 Peachtree Rd NW Ste 400, Atlanta GA 30305 (Owner); Steven Kolber, Kolbrook Design, Inc. (Agent), requesting a site plan review & exterior fenestration review on Tax Parcel #82-4-222-271-0309, located in the NE ¼ Section 27, T2 N, R22 E, Village of Somers

    Commissioner Boxx moves to accept the request.
    Commissioner Juliana seconds the motion.

    Motion carried. 7-0.

12. **Comp Plan Amendment – Shoreland Lutheran HS** Shoreland Lutheran High School Federation, Inc., 9026 12th St., Kenosha, WI 53144, (Owner), requests an amendment to the land use plan map for the Village of Somers (Map 80) as adopted in the Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035 from "Medium-Density Residential", “Governmental and Institutional”, “Other Conservancy Land to be Preserved”, “Nonfarmed Wetland”, and “Surface Water” to “Governmental and Institutional”, “Other Conservancy Land to be Preserved”, “Nonfarmed Wetland”, and “Surface Water” on Tax Parcel #s 82-4-222-084-0272 and 82-4-222-084-0262, located in the SE 1/4 of Section 8, T2N, R22E, Village of Somers.

    Public Comments: Mark Molinaro Jr. 1011 12th Street, Somers.
    He mentions being in favor of the project but wants water issues addressed.

    Commissioner Boxx moves to accept the request.
    Commissioner Juliana seconds the motion.

    Motion carried. 7-0.

13. **Rezone – Shoreland Lutheran HS** Shoreland Lutheran High School Federation, Inc., 9026 12th St., Kenosha, WI 53144, (Owner), requests a rezoning from I-1 Institutional Dist., A-4 Agricultural Land Holding Dist., and R-3 Urban Single-Family Residential Dist. to I-1 Institutional Dist., on Tax Parcel #s 82-4-222-084-0272 and 82-4-222-084-0262, located in the SE 1/4 of Section 8, T2N, R22E, Village of Somers.

    Public comments: none.

    Shoreland representative talks about the project retaining significant stormwater from nearby properties and takes into account future development on the Shoreland campus.

    Commissioner Boxx moves to accept the request.
    Commissioner DeLuca seconds the motion.

    Motion carried. 7-0.

14. **Certified Survey Map – Shoreland Lutheran HS** Shoreland Lutheran High School Federation, Inc., 9026 12th St., Kenosha, WI 53144, (Owner), requests approval of a Certified Survey Map (undated Certified Survey Map by Ryan Wilgreen of Excel Engineering, Inc.) to reconfigure two (2) existing tax parcels into one (1) tax parcel, on Tax Parcel #s 82-4-222-084-0272 and 82-4-222-084-0262, located in the SE 1/4 of Section 8, T2N, R22E, Village of Somers.

    Public Comments: none.

    Commissioner Boxx moves to accept the request.
    Commissioner Juliana seconds the motion.

    Motion carried. 7-0.

15. **Adjourn**

    Commissioner Juliana moved to adjourn.
    Commissioner Boxx seconds the motion.

    Motion carried 7-0 vote.

Drafted April 9, 2024

These minutes are not official until approved by the Plan Commission.
Submitted by Assistant to the Administrator/Communication Specialist Kevin Poirier

COUNTY OF KENOSHA

Division of Planning & Development

Andy M. Buehler, Director
Division of Planning & Development
19600 75th Street, Suite 185-3
Bristol, WI 53104-9772
(262) 857-1895

TO: **Village of Somers Plan Commission**
FROM: **Luke Godshall, Senior Land Use Planner**
RPT DATE: **05-31-24**
MTG DATE: **06-10-24**
APPLN DATE: **04-26-24**
RE: **"Somers Gateway Center" – Proposed Fueling Station & Hotel**

PROJECT/SITE INFO:

1. Petitioner/Agent: Devin Winter, Excel Engineering Inc.
2. Property Owner: Somers Gateway Center LLC
3. Location/Address: NE corner of CTH E & East Frontage Road
4. Tax key Number(s): 82-4-222-073-0301
5. Area: 25 acres
6. Existing Zoning: A-4 Agricultural Land Holding Dist., FPO Floodplain Overlay Dist.
7. Proposed Zoning: B-3 Highway Business Dist., PUD Planned Unit Development Overlay Dist., A-4 Agricultural Land Holding Dist., FPO Floodplain Overlay Dist.
8. Existing Land Use: Business/Industrial Park
9. Proposed Land Use: Business/Industrial Park

PROJECT OVERVIEW:
The Petitioner is proposing to subdivide the subject 25-acre parcel into four (4) Lots via Certified Survey Map (CSM) and construct a fueling station w/ convenience store and (2) restaurants with outside dining on one of the Lots, and a 107-room hotel on a second Lot. The other 2 Lots of the CSM would be retained for future development.

This project requires rezoning approval (for the lots currently being proposed for development), conditional use permit approval for the proposed fueling station use with outside dining, land division approval to create the proposed Lots via CSM, site plan & exterior fenestration approval for each the proposed fueling station and hotel, and a PUD Planned Unit Development Overlay District approval for several ordinance deviations being requested by the Petitioner.

Specific components of the project are summarized/discussed below.

Conditional Use Permit requests:
By ordinance fueling stations (gasoline service stations) require approval of a conditional use permit. There are three (3) canopies proposed for the fueling station – one gas canopy to the south side of the building, one diesel canopy to the north of the building, and one canopy over the electric charging station to the southwest of the building. All canopies fall under the 20' height limit, and the canopies are located well beyond the 30' setback requirement from property lines.

Outside dining areas also require conditional use permit approval. There are 2 small outside dining areas proposed to be located at the south side the building, each with 3 tables located on either side of the main

Andy M. Buehler, Director
Division of Planning & Development
19600 75th Street, Suite 185-3
Bristol, WI 53104-9772
(262) 857-1895

entrance for total seating of 12. Per the conditional use permit requirements, no outside music speakers or live music associated with the outside dining area is permitted.

PUD Request:
The Petitioner is requesting a PUD overlay as part of their rezoning request in order to provide flexibility from certain Village ordinance standards. The PUD overlay would apply to Lots 1 and 4 of the proposed CSM. Here is a summary of the requested ordinance deviations for the fueling station property:

- An access drive having a width of 45' at the property line (35' maximum by ordinance).
- Two (2) freestanding signs located along the East Frontage Rd. (one at a drive entrance and one not), and being located within 300' of each other (ordinance allows one (1) freestanding sign per street frontage or drive entrance, provided they are located at least 300' apart).
- One (1) freestanding sign having a sign area of 502 square feet per side (300 square feet per side allowed by ordinance when located within 50' of the right-of-way edge of the Frontage Road), and one (1) freestanding sign having a sign area of 240 square feet per side (150 square feet per side allowed by ordinance when located beyond 50' of the right-of-way edge of the Frontage Road).
- One (1) freestanding sign having a height of 80' (30' height allowed by ordinance when located within 50' of the right-of-way edge of the Frontage Road), one (1) freestanding sign having a height of 40' (30' height allowed by ordinance when located within 50' of the right-of-way edge of the Frontage Road), and one (1) freestanding sign having a height of 40' (20' height allowed by ordinance when located beyond 50' of the right-of-way edge of the Frontage Road).
- A landscaping plan to include modest reductions to the requirements for building foundation landscaping and open yard area landscaping requirements.

Additionally, the PUD request includes one ordinance deviation that would apply specifically to the hotel property:

- A building height of 56' (35' height maximum allowed by ordinance).

Of the PUD requests being made, the proposed heights of the freestanding signs and their display areas are of some concern as they exceed ordinance requirements by significant amounts. It is also unclear if the City of Kenosha airport would allow the increased sign heights, being that the property lies within an airport overlay district. Staff would recommend the Plan Commission consider if the proposed freestanding sign heights of 80' and 40' are necessary or if lower heights would be more suitable for this site. Regarding the proposed 80' sign, by comparison a 50' tall freestanding sign was ultimately approved for the Kwik Trip property at the NE corner of East Frontage Rd. & STH 142, and there is also a 50' tall freestanding sign that was approved by variance at the Kenosha Travel Plaza located at the NW corner of East Frontage Rd. & STH 142.

Looking at the submitted sign elevation drawings, it appears that the monument sign proposed for the corner of East Frontage Rd. & CTH E (labelled "Municipal Sign" on the drawings) would also require approval of a deviation under the PUD, as its area exceeds the ordinance maximum allowance of 160 square feet (an area measurement taken from the scaled drawing shows the sign to be approximately 212 square feet). If the Plan Commission does not see an issue with allowing this modest square footage increase, it is suggested that it be included in the PUD approval.

Andy M. Buehler, Director
Division of Planning & Development
19600 75th Street, Suite 185-3
Bristol, WI 53104-9772
(262) 857-1895

Site Access:
The submitted site plans show the project will be accessed by two driveways: one would enter the fueling station property (Lot 1 of the proposed CSM) from the Frontage Road and would also serve the hotel property and the to-be-developed Lot 3 of the CSM through cross-access easement (as these Lots are not allowed to have their own access due to WisDOT access prohibitions), and the other driveway would enter into the to-be-developed Lot 2 of the CSM from CTH E and cross over into the fueling station property through cross-access easement. The proposed access locations have been located so as to line up with an existing public street (11th Place) and an existing median opening on CTH E.

Because the East Frontage Road and a portion of CTH E is under the jurisdiction of the Wisconsin Dept. of Transportation (WisDOT), the applicant will need to obtain formal approvals from WisDOT for the proposed access drives. It is possible that WisDOT may require a Traffic Impact Analysis (TIA) to identify if any roadway improvements are necessary (i.e. turn lanes, deceleration lanes, etc).

Parking:
For the fueling station property, the required amount of parking spaces by ordinance is 135. This is based on a parking ratio of 1 space/150 sq. ft., a proposed building size of 18,812 sq. ft., and the number of employees on the largest shift (10). The submitted plans provide for 139 parking spaces and therefore meets ordinance requirements. Additionally, the two (2) proposed drive-through lanes each provide stacking for 8 vehicles which is the ordinance requirement.

For the hotel property, the required amount of parking spaces by ordinance is 122. This is based on a parking ratio of 1 space/employee (15), and 1 space/guest room (107). The submitted plans provide for 129 parking spaces and therefore meets ordinance requirements.

All parking spaces on the submitted site plans are shown to be 9'x18' in size and provide for 24' wide aisles between the ends of parking spaces to meet ordinance requirements.

Landscaping:
Site landscaping plans have been submitted for both the fueling station and hotel properties. Both plans provide for a wide variety of deciduous and evergreen trees, shrubs and perennials and generally meet ordinance landscaping requirements, with the exception of the fueling station requesting slight reductions for landscaping along the building foundation and within the open yard area where there are proposed to be public utilities and easements. These are detailed in the submitted rezone narrative which lists the specific deviations being requested as part of the PUD request.

Lighting:
Photometric plans have been submitted for both the fueling station and the hotel properties. Each plan shows proposed lighting intensity and proposed lighting fixtures meet ordinance standards.

Building Design:
Building elevations and renderings submitted for the proposed fueling station indicate that it will be constructed with a variety of materials including brick in different colors/finishes, stone, composite panels, metal, glass, and horizontal siding. The overall design of the building is similar to the building Golden Oil constructed at their new facility on the NW corner of CTH E & CTH Y. The design also incorporates canopies, awnings and many

Andy M. Buehler, Director
Division of Planning & Development
19600 75th Street, Suite 185-3
Bristol, WI 53104-9772
(262) 857-1895

colors to create variety. Parapets are also incorporated which should shield any roof-mounted mechanical equipment from ground view.

Elevations and renderings were also submitted for the hotel to show IHG Hotels & Resorts' prototype building design. The design incorporates multiple colors/finishes, building articulations, a large overhang on the south side of the building, and parapets to shield roof-mounted mechanical equipment from ground view.

Trash Enclosures:
The submitted Dumpster Enclosure Plan and Elevations for the fueling station show the enclosure has been designed to meet Village ordinance standards, being 6' in height and constructed with a combination of masonry on three sides and solid wood gate fencing on the fourth side. The enclosure is also shown on the landscaping plan to be bordered by arborvitaes and has been designed to match the look/color scheme of the building.

The site plan for the hotel shows a dumpster enclosure area at the NE corner of the parking lot shown to be surrounded by arborvitaes. However, it is not clear from the submitted plans what the enclosure will be constructed of or how tall it would be. The Petitioner shall submit a plan to show that the enclosure will meet Village ordinance requirements.

CSM:
The submitted Certified Survey Map proposes to subdivide the existing 25-acre parcel into four (4) Lots. The fueling station w/ convenience store & restaurants would be located on Lot 1 of the CSM, while the hotel would be located on Lot 4 of the CSM. Lots 2 and 3 of the CSM are not proposed to be developed at this time.

The submitted Certified Survey Map complies with the Village of Somers Land Division and Platting Control Ordinance. One minor revision to the CSM is noted in the staff recommendation below, to revise the name of the Village Clerk-Treasurer as it has recently changed.

This project will require approval from the City of Kenosha for an Airport Site Plan review, as the property is located within a City of Kenosha Airport Overlay zoning district.

Planning & Development will issue zoning permits for the project only after the Petitioner has executed a Developer's Agreement with the Village and has met any other of the Village's requirements for the development.

STAFF RECOMMENDATION:
Should the Plan Commission choose to recommend approval of this project, staff would recommend the following conditions:

1. The Conditional Use Permit shall be subject to the conditions present in the Village of Somers General Zoning and Shoreland/Floodplain Zoning Ordinance Section ZN 5.03(8)(b)50; Gasoline service stations in the B-1, B-2, B-3, B-4 and B-5 Districts:

    a. A detailed site plan shall be submitted showing all structures and their distances including canopies, pump islands, light poles, tower signs, storage tank locations, etc.
    b. All canopy posts shall be at least thirty (30) feet from any property line. No canopy shall exceed twenty (20) feet in height.

Andy M. Buehler, Director
Division of Planning & Development
19600 75th Street, Suite 185-3
Bristol, WI 53104-9772
(262) 857-1895

c. Canopies shall not be permitted to overhang past the property line.
d. All pumps shall be set back at least thirty (30) feet from any property line.
e. Gasoline service stations for semi-trailers shall have their ingress and egress located in such a fashion as to give due regard to topography and public road and pedestrian traffic taking into consideration hills, curves, speed limits and vision clearance.

2. The Conditional Use Permit shall be subject to the conditions present in the Village of Somers General Zoning and Shoreland/Floodplain Zoning Ordinance Section ZN 5.03(8)(b)113; Restaurants, bars and taverns with outdoor dining, recreation, entertainment in the B-2 and B-3 Districts:

   a. A site plan shall be submitted showing all proposed outdoor use areas including parking, landscaping and the location of existing structures.
   b. Hours of use may be limited to prevent disturbance to abutting property owners.
   c. Lighting may be limited to prevent disturbance to abutting property owners.
   d. There shall be no outside music speakers or live music.
   e. Any approval granted must be in conformance with the restrictions of the liquor license issued for the establishment.

3. The Certified Survey Map shall be subject to the following:

   a. Subject to revising the CSM to address any review comments from the Wisconsin Department of Administration.

   b. Subject to making the following revisions to the CSM:

      1. On Sheet 3 of 4, revise the name of the Village Clerk-Treasurer to be “Wendy Burnette”.

   c. Subject to sending an electronic copy of the revised CSM showing the aforementioned changes to the Kenosha County Department of Planning and Development office to receive sign-off prior to the surveyor preparing the recordable CSM document for signatures. The county contact is Luke Godshall who can be contacted at the following e-mail address: luke.godshall@kenoshacounty.org.

   d. No land division shall be recorded if any portion or part of the parent parcel has any unpaid taxes or outstanding special assessments without prior approval of the local and Kenosha County Treasurer.

   e. Subject to the Certified Survey Map (CSM) being recorded with the Kenosha County Register of Deeds within twelve (12) months of receiving approval from the Somers Village Board.

4. Subject to a PUD Planned Unit Development Overlay District being applied to Lots 1 and 4 of the CSM (fueling station and hotel, respectively). Specific ordinance deviations as approved by the Plan Commission and Board shall be incorporated into the Developer’s Agreement.

5. Subject to submitted plans to be reviewed/approved for the proposed trash enclosure to be located on the hotel property.

Andy M. Buehler, Director
Division of Planning & Development
19600 75th Street, Suite 185-3
Bristol, WI 53104-9772
(262) 857-1895

6. Subject to obtaining any necessary approvals and/or permits from the Wisconsin Department of Transportation regarding the proposed access connections to the East Frontage Road of Interstate Highway 94 and to area of CTH E (12th Street) within WisDOT's jurisdiction.

7. Subject to approval of an Airport Site Plan Review by the City of Kenosha.

8. Subject to final review and approval by the Village of Somers engineer.

9. Subject to approval by the Somers Fire & Rescue Department.

10. Subject to a Kenosha County zoning permit being issued for any proposed structures including principal buildings, signage, fences, accessory buildings, etc.

11. Subject to implementation of a Developer's Agreement between the Petitioner and the Village of Somers.

Review Comments and Request for Additional Information

Golden Oil – Somers Gateway Center / Somers Hotel
Plans and Calculations Dated April 26, 2024
Village of Somers
May 21, 2024

We reviewed the engineering documents prepared by Excel Engineering, for the Golden Oil – Somers Gateway Center project. Attached are marked-up plans reflecting a portion of the comments below. Please provide or change the following items:

General Comments:

1. Provide a traffic impact analysis for the the East Frontage Road and CTH E entrances.
2. Provide the geotechnical report and stormwater soil evaluation, SWMP - Appendix E.
3. Provide copies of all permits when received.
4. There are likely farm drain tiles within the proposed development. We recommend a pre-construction tile survey to confirm the presence and location of tiles on the property. All existing surface and subsurface drainage pathways must be maintained or properly rerouted.
5. See the attached Concept Plan for Sanitary Sewer West of the Subcontinantal Divide.

CSM Comments:

1. Show proposed easements or provide draft easement documents.

Somers Gateway Center Plan Comments (Privately Constructed):

1. Sheet C0.1: Public improvements will be bid separately. Remove the sheet index or note that it will be "by others".
2. Sheet C0.2:
   a. All tracer wire shall be 10-gauge copper.
   b. All sanitary sewer pipe shall be SDR 26.
3. Sheet C1.0A through and C1.0E:
   a. Provide wetland and floodplain permits.
   b. A WisDOT permit is required for work in the Frontage Road.
   c. A Kenosha County Highway permit is required for work in CTH E.
4. Sheet C1.1A through C1.1C:
   a. Dimension proposed easements and revise labels.
   b. Show proposed pond.
5. Sheet C1.2A through C1.2F:
   a. Provide culverts across utility access route.
   b. Provide stormwater easements for drainage along property lines.
   c. Provide pond easements.
   d. Obtain an easement for the pond outfall pipe.
6. Sheet C1.3A through C1.3F:
   a. Relocate the public water main and sanitary sewer within, or directly adjacent to, the frontage road.
   b. Revise easements per the new water main and sanitary sewer route.
   c. Add a fire department dry hydrant and detail per plan mark-ups.
   d. Install a fire hydrant at the Frontage Road entrance.
   e. Verify that 100yr pipe storm sewer inlets can handle the 100yr storm.
   f. Note that the water main and sanitary sewer crossing CTH E are "by others".

BAXTER & WOODMAN Consulting Engineers

g. Provide a drivable surface over public utilities within easement areas.
h. No parking in front of fire hydrants.

7. Sheet C2.0 through C2.3:
   a. Relocate the public water main and sanitary sewer within, or directly adjacent to, the frontage road.
   b. On-site sanitary sewer size should be changed to 8-inch.
   c. Move Public Hydrant 4 within easement.
   d. Provide granular backfill for public utilities under pavement.
8. Sheet C3.1:
   a. Add a dry hydrant detail per the note on sheet C1.3A.
   b. Revise the sanitary sewer manhole per the plan mark-ups.
   c. Revise outlet structure.
   d. The sampling manhole can be a standard manhole.

<u>Somers Gateway Center Plan Comments (Publicly Bid):</u>

1. Sheet C4.1:
   a. Add Certa-Lok pipe as a directional drill option. The Village will specify materials in the publicly bid specification book.
   b. All tracer wire shall be 10-gauge copper.
2. Sheet C4.3:
   a. Connect directly to the existing water main pipe or extend north from the existing stub at the corner of CTH E and the Frontage Road.
   b. Note that the existing water main is 12-inch diameter.
   c. Show right-of-way and easement lines.
   d. Provide a 12-inch sanitary sewer from existing to the road crossing and 8-inch crossing CTH E.
3. Sheet C4.4: Make the gate valve on the north side of CTH E part of the publicly bid portion.
4. Sheet C4.5:
   a. Show right-of-way and easement lines.
   b. Provide a 12-inch sanitary sewer from existing to the road crossing and 8-inch crossing CTH E.
   c. Don't specify the pipe material for the jack & bore in the profile. Material choices will be specified in the project specifications.
5. Sheet C4.6:
   a. Revise the sanitary sewer manhole per the plan mark-ups.
   b. Add a valve box detail.

<u>Somers Hotel Plan Comments:</u>

1. Sheet C1.3: Add a fire department dry hydrant and detail per plan mark-ups.
2. Sheet C1.3: Revise utility connection locations per Somers Gateway Center Review.

<u>Storm Water Management Plan Comments:</u>

1. Start pond routing calculations at the 100yr flood elevation (719).
2. Provide a Hydraflow node diagram corresponding to the calculations.
3. Calculate storm sewer flows using the rational method.
4. Show the calculated velocity in each storm sewer pipe.
5. Verify that the inlet capacity for the 100yr pipes is adequate to handle the 100yr flows.

Floodplain Impact Analysis: Submit floodplain analysis to the WDNR for approval of the modeling prior to construction. If the WDNR agrees with the modeling showing a no rise condition for the base flood elevations, submit to the WDNR and FEMA for a LOMR following construction for the floodplain changes. Alternatively, provide a CLOMR prior to construction.

WDNR Permit forms:

1. Water Main: 3300-066 (both forms): 16 (B) should be "yes".
2. Sanitary Sewer
   a. Change sewer size on all forms per comments.
   b. 3400-059 (both forms): 1.E should be Andrew Kreye.

Status of Engineer's Approval: Not Approved

Brett D. Biwer

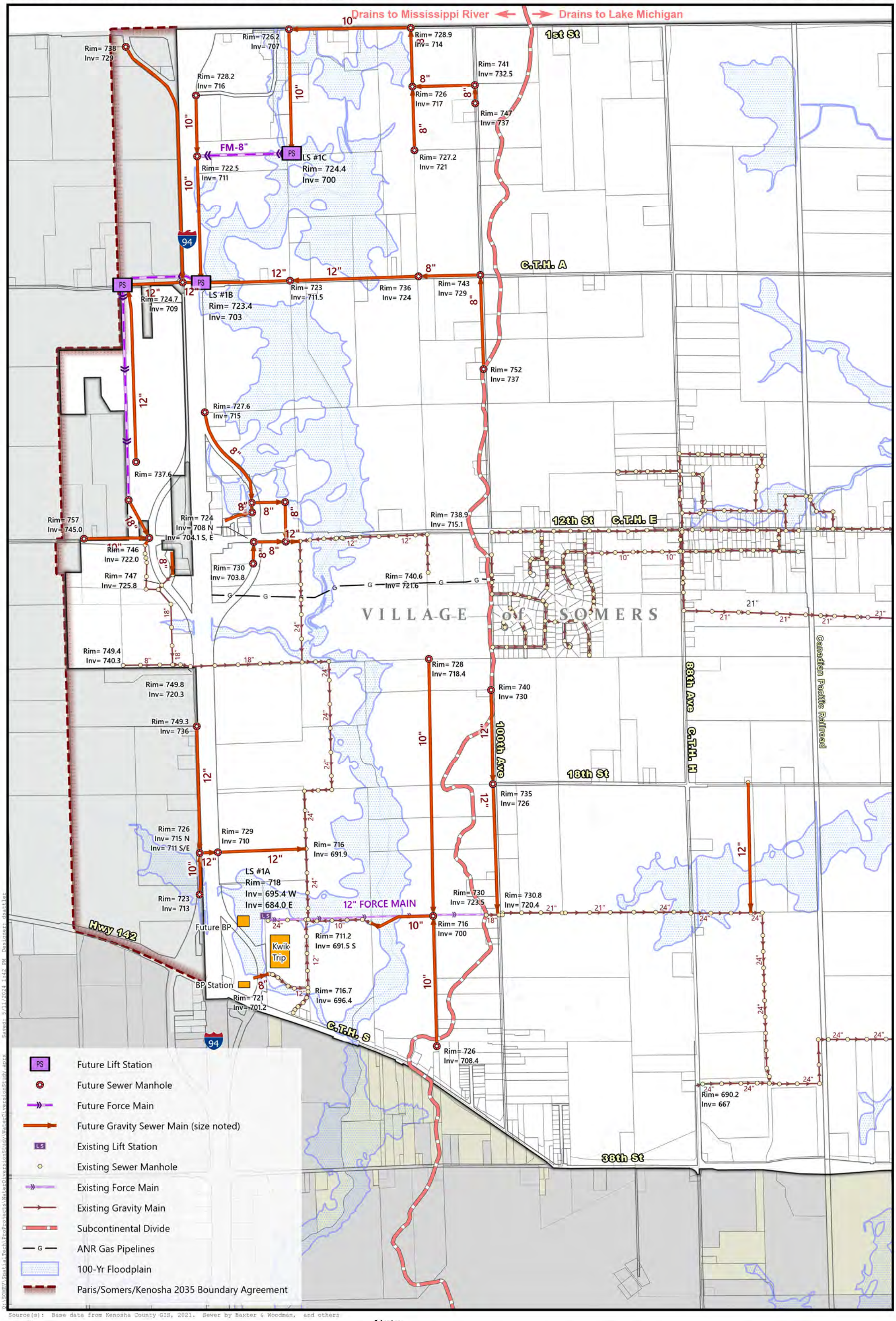
Brett D. Biwer, PE

Cc: Jason J. Peters, JD/MPA – Village Administrator
Douglas R. Snyder, P.E. – Village Engineer

CONCEPT PLAN

SANITARY SEWER SERVICE WEST OF DIVIDE

Village of Somers, WI



Source(s): Base data from Kenosha County GIS, 2021. Sewer by Baxter & Woodman, and others

N

May 10, 2024

0 900 1,800 3,600 Feet

Note:
This is a fluid document; seek most current version.

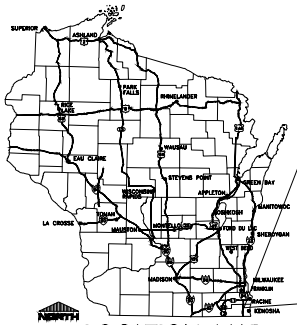
BAXTER & WOODMAN Consulting Engineers

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

LEGEND

PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)
EXISTING GRADE SPOT ELEVATIONS
PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG-FINISHED SURFACE GRADE AT BACK OF WALL FG-FINISHED SURFACE GRADE AT FRONT OF WALL
PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
EXISTING WATER VALVE IN BOX
PROPOSED WATER VALVE IN BOX
EXISTING WATER VALVE IN MANHOLE
EXISTING WATER SERVICE VALVE
EXISTING TELEPHONE MANHOLE
EXISTING STORM CATCH BASIN
PROPOSED STORM CATCH BASIN – ST CB
PROPOSED STORM FIELD INLET – ST FI
EXISTING SQUARE CATCH BASIN
EXISTING STORM CURB INLET
PROPOSED STORM CURB INLET – ST CI
EXISTING UTILITY POLE
EXISTING UTILITY POLE WITH GUY WIRE
EXISTING STREET LIGHT
EXISTING TELEPHONE PEDESTAL
EXISTING ELECTRIC PEDESTAL
EXISTING ELECTRIC BOX
EXISTING CABLE TV PEDESTAL
PROPOSED DRAINAGE FLOW
1-1/4" REBAR SET WEIGHING 4.30 LB/FT.
3/4" REBAR SET WEIGHING 1.50 LB/FT.
1-1/4" REBAR FOUND
3/4" REBAR FOUND
2" IRON PIPE FOUND
1" IRON PIPE FOUND
EXISTING FLOOD LIGHT
SECTION CORNER
PROPOSED APRON END SECTION
EXISTING MARSH AREA
EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
EROSION MATTING
PROPOSED INLET PROTECTION

EXISTING CONIFEROUS TREE
EXISTING SHRUB
EXISTING STUMP
SOIL BORING
EXISTING WELL
PROPOSED WELL
PROPOSED LIGHT POLE
EXISTING LIGHT POLE
PROPOSED SIGN
EXISTING SIGN
CENTER LINE
EXISTING HANDICAP PARKING STALL
PROPOSED HANDICAP PARKING STALL
EXISTING GAS VALVE
EXISTING WOODED AREA
EXISTING HEDGE
EXISTING CHAINLINK FENCE
EXISTING WOOD FENCE
EXISTING BARBED WIRE FENCE
PROPOSED PROPERTY LINE
EXISTING GUARD RAIL
EXISTING STORM SEWER AND MANHOLE
PROPOSED STORM SEWER AND MANHOLE – ST MH
EXISTING SANITARY SEWER AND MANHOLE
PROPOSED SANITARY SEWER AND MANHOLE – SAN MH
EXISTING WATER LINE AND HYDRANT
PROPOSED WATER LINE AND HYDRANT
EXISTING OVERHEAD UTILITY LINE
EXISTING UNDERGROUND FIBER OPTIC LINE
EXISTING UNDERGROUND ELECTRIC CABLE
EXISTING UNDERGROUND TELEPHONE CABLE
EXISTING UNDERGROUND GAS LINE
PROPOSED CURB AND GUTTER
EXISTING CURB AND GUTTER
GRADING/SEEDING LIMITS
RIGHT-OF-WAY LINE
INTERIOR PROPERTY LINE
RAILROAD TRACKS
EXISTING GROUND CONTOUR
PROPOSED GROUND CONTOUR



LOCATION MAP

PROJECT LOCATION MAP

CIVIL SHEET INDEX

SHEET	SHEET TITLE
C0.1	CIVIL COVER SHEET
C0.2	CIVIL SPECIFICATION SHEET
C0.3	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C1.0A	EXISTING SITE AND DEMOLITION PLAN - OVERALL
C1.0B	EXISTING SITE AND DEMOLITION PLAN - SOUTHWEST
C1.0C	EXISTING SITE AND DEMOLITION PLAN - NORTHWEST
C1.0D	EXISTING SITE AND DEMOLITION PLAN - SOUTHEAST
C1.0E	EXISTING SITE AND DEMOLITION PLAN - NORTHEAST
C1.1A	SITE PLAN - OVERALL
C1.1B	SITE PLAN - SOUTHWEST
C1.1C	SITE PLAN - NORTHWEST
C1.2A	GRADING AND EROSION CONTROL PLAN - OVERALL
C1.2B	GRADING AND EROSION CONTROL PLAN - SOUTHWEST
C1.2C	GRADING AND EROSION CONTROL PLAN - NORTHWEST
C1.2D	GRADING AND EROSION CONTROL PLAN - SOUTHEAST
C1.2E	GRADING AND EROSION CONTROL PLAN - NORTHEAST
C1.2F	GRADING AND EROSION CONTROL PLAN - NORTH
C1.3A	UTILITY PLAN - OVERALL
C1.3B	UTILITY PLAN - SOUTHWEST
C1.3C	UTILITY PLAN - NORTHWEST
C1.3F	UTILITY PLAN - NORTH
C1.4A	LANDSCAPE AND RESTORATION PLAN - OVERALL
C1.4B	LANDSCAPE AND RESTORATION PLAN - SOUTHWEST
C1.4C	LANDSCAPE AND RESTORATION PLAN - NORTHWEST
C1.4D	LANDSCAPE AND RESTORATION PLAN - SOUTHEAST
C1.4E	LANDSCAPE AND RESTORATION PLAN - NORTHEAST
C1.4F	LANDSCAPE AND RESTORATION PLAN - NORTH
C1.5	SITE PHOTOMETRIC PLAN & DETAILS
C2.0	PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 0+00 - 9+00
C2.1	PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 9+00 - 19+00
C2.2	PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 30+00 - 39+45
C2.3	PUBLIC UTILITY EXTENSION PLAN & PROFILE- STA 30+00 - 37+65
C2.4	PUBLIC HYDRANT PLAN & PROFILES
C3.0	DETAILS
C3.1	DETAILS
C3.2	DETAILS

PUBLIC IMPROVEMENT SHEET INDEX

SHEET	SHEET TITLE
C0.0	CIVIL COVER SHEET
C0.1	CIVIL SPECIFICATION SHEET
C0.3	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C0.3	SITE, GRADING, EROSION CONTROL, & RESTORATION PLAN
C0.4	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 12+00 - 14+81
C0.5	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 37+65 - 42+39
C0.6	DETAILS

THIS WORK WILL BE BID BY THE VILLAGE.

REMOVE SHEET INDEX OR NOTE THAT IT WILL BE DONE BY OTHERS.

CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
	2. PLACE ALL SILT FENCE.
	3. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS.
	4. CONSTRUCT PERMANENT DETENTION PONDS AND PERMANENT STORMWATER CONVEYANCE SYSTEMS.
	5. CONSTRUCT ANY TEMPORARY STORMWATER CONVEYANCE SYSTEMS.
	6. STABILIZE ALL TEMPORARY AND PERMANENT EROSION CONTROL AND STORMWATER CONVEYANCE SYSTEMS BEFORE TOPSOIL CAN BE STRIPPED.
2. CONSTRUCTION ACTION	1. CLEAR AND GRUB TREES AND BRUSH AS REQUIRED.
	2. STRIP AND RELOCATE TOPSOIL TO THE DESIGNATED TOPSOIL STOCKPILE LOCATION. SURROUND STOCKPILE WITH SILT FENCE.
	3. BEGIN MASS EARTH WORK FOR THE BUILDING PAD AND PAVEMENT AREAS.
	4. CONSTRUCT ANY REMAINING STORMWATER CONVEYANCE SYSTEMS, AND INSTALL ALL OTHER UTILITIES ON SITE.
	5. DIG AND POUR ALL BUILDING FOOTINGS.
	6. PLACE GRAVEL FOR ALL PROPOSED PAVEMENT AREAS, INCLUDING FIRE LANES.
	7. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PROPOSED PAVEMENT AREAS.
	8. CONSTRUCT BUILDING.
	9. PAVE DRIVEWAYS AND PARKING AREAS.
	10. TOPSOIL, SEED, AND MULCH ALL OTHER DISTURBED AREAS. PLACE EROSION MATTING AND RIP RAP.
3. POST CONSTRUCTION ACTION	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.
	2. SEE THE POST CONSTRUCTION MAINTENANCE PLAN FOR PERMANENT STORMWATER MANAGEMENT SYSTEMS.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN, AT 920-926-9800 OR RYAN.WILGREEN@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

GENERAL PROJECT NOTES

1. ALL DRIVEWAYS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS. ALL WORK IN THE ROW SHALL CONFORM TO KENOSHA COUNTY STANDARDS & SPECIFICATIONS.
3. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.
4. ANY PERSON ERECTING, MOVING, ENLARGING OR RECONSTRUCTING A STRUCTURE, WHICH, UNDER THIS ORDINANCE, REQUIRES A ZONING PERMIT SHALL UPON COMPLETION OF THE CONSTRUCTION OF FOOTINGS, CONCRETE SLAB OR OTHER FOUNDATIONS, SUBMIT TO THE DEPARTMENT OF PLANNING AND DEVELOPMENT A SURVEY PREPARED BY A REGISTERED LAND SURVEYOR SHOWING THE LOCATIONS, BOUNDARIES, DIMENSIONS, ELEVATIONS AND SIZE OF THE FOLLOWING: THE BOUNDARIES OF THE LOT, ALL EXISTING STRUCTURES (INCLUDING FOUNDATIONS) AND THEIR RELATIONSHIP TO THE LOT LINES. THE VILLAGE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL COMPARE THE LOCATION OF ALL NEW OR EXTENDED FOUNDATIONS WITH THE LOCATION OF ALL PROPOSED CONSTRUCTION ACTIVITY REPORTED ON THE PERMIT APPLICATION. NO FURTHER CONSTRUCTION MAY COMMENCE UNLESS THE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL FIND THAT THE FOUNDATION LOCATION IS CONSISTENT WITH THE PERMIT AS ISSUED AND SHALL SO CERTIFY. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION SHALL BE GROUNDS FOR THE ISSUANCE OF A CITATION PURSUANT TO SECTION ZN 6.03(3) OF THIS ORDINANCE, AND ATTENDANT PENALTIES.
5. CONTRACTOR SHALL OBTAIN AND FOLLOW THE VILLAGE OF SOMERS DEVELOPMENT STANDARDS DATED APRIL 3,2018 AND STANDARD MATERIAL SPECIFICATION CHECKLIST DATED JULY 2023 FOR ALL CONSTRUCTION REQUIREMENTS. IF DISCREPANCIES ARE NOTICED, CONTRACTOR SHALL CONFORM TO VILLAGE OF SOMERS REQUIREMENTS.
6. CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY OF THE PROPOSED WATER MAIN AND SANITARY MAINS FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE PUBLIC MAINS. THE CONTRACTOR SHALL TAKE ADEQUATE FIELD NOTES, PICTURES, ETC AND PROVIDE TO THE ENGINEER OF RECORD FOR COMPLETION OF THE RECORD DRAWINGS. THE RECORD DRAWINGS SHALL BE COMPLETED AND SUBMITTED TO THE VILLAGE ENGINEER PRIOR TO THE PROPERTY DEVELOPER'S REQUEST FOR FINAL INSPECTION OF THE IMPROVEMENTS. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE FOR SURVEYING.
7. IF DEWATERING IS REQUIRED FOR INSTALLATION OF UTILITIES OR OTHER IMPROVEMENTS FOR THE PROPOSED PROJECT, THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT AND OBTAIN THE NECESSARY WISCONSIN DISCHARGE ELIMINATION SYSTEM (WPDES) PERMITS FOR DEWATERING AS REQUIRED/NECESSARY BY THE WISCONSIN DNR. DEWATERING SHALL BE IN ACCORDANCE WITH WI DNR TECH STANDARD 1061.

A WISDOT PERMIT IS REQUIRED FOR THE FRONTAGE ROAD.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED) 1-800 542-2289
WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

CONTACTS

OWNER
SOMERS GATEWAY CENTER, LLC
1170 22ND AVE
KENOSHA, WI 53140
CONTACT: PAUL BRANDAW
P: (262) 455-1975
paul@golden-oil-company.com

DEVELOPER
KELLER BUILDS, INC
W356 N11 550 GOLDEN LAKE RD
CRANMOOR, WI 53005
CONTACT: KRISTOPHER LAURENT
P: (262) 354-3812
F: (262) 338-9743
klaurent@kellerbuilds.com

CIVIL
EXCEL ENGINEERING
100 CRANLOCH DRIVE
PEWAUKEE, WISCONSIN 53072
CONTACT: DAVID WINTER, P.E.
P: (262) 696-3888
F: (262) 696-3891
dwinter@excelengineer.com

CIVIL COVER SHEET
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
FOX CITIES | MADISON
MILWAUKEE | WAUSAU
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C0.1

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT.
   2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   5. UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY ____________________.
H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (5 LT 58-28S)	1-1/2" SURFACE COURSE (5 LT 58-28S)
(WISDOT 455.2.5 TACK COAT (STAGED PAVING)	WISDOT 455.2.5 TACK COAT (STAGED PAVING)
2" BINDER COURSE (4 LT 58-28S)	2-1/2" BINDER COURSE (4 LT 58-28S)
10" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE

B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
D. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. DUMPSTER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1). TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1). CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
   3. HEAVY DUTY CONCRETE (TRUCK TRAFFIC) - 6" OF CONCRETE OVER 6" OF 3/4" CRUSHED AGGREGATE. CONCRETE SHALL BE REINFORCED WITH #3 REBARS ON CHAIRS AT 3' O.C. REBAR SHALL BE PLACED PLACED AT ½ OF THE SLAB DEPTH. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 15' ON CENTER.
   4. LIGHT DUTY CONCRETE (PASSENGER CAR TRAFFIC) - 5" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 12.5' ON CENTER
      a. CONCRETE SHALL BE STEEL REINFORCED AS FOLLOWS:
         1). TIE BARS AT OUTERMOST CONTRACTION JOINT (FIRST JOINT FROM EDGE OR AT CURB JOINT) AROUND PERIMETER OF CONCRETE. TIE BARS SHALL BE #4 REBAR 24" LONG PLACED AT 30" O.C.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1/4" X 4-1/2" X 4-1/4" DIAMOND SHAPED TAPERED PLATE DOWELS MANUFACTURED PER ASTM A36. INSTALL PER MANUFACTURERS SPECIFICATIONS.
E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE-STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45.
M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.
N. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 30 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
   TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
B. SEEDED LAWNS:
   1. PERMANENT LAWN AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS./1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS./1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.). STRAW AND MULCH SHALL BE LAID AT 100LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   2. ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES AS WELL AS STORMWATER MANAGEMENT BASIN BOTTOMS AND SIDE SLOPES SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS./1000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   3. ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 1.9 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
C. SEEDED LAWN MAINTENANCE: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"X5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
D. EROSION MATTING:
   1. CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER OUTSIDE OF STORMWATER CONVEYANCE SWALES AND STORMWATER MANAGEMENT BASINS. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
   2. CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS WELL AS STORMWATER MANAGEMENT BASIN BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
E. STORMWATER MANAGEMENT POND SAFETY SHELF SEEDING: SAFETY SHELF SHALL BE SEEDED WITH A WET PRAIRIE EMERGENT PLANT TYPE MIX.
F. RIP RAP: ALL RIP RAP ASSOCIATED WITH STORMWATER MANAGEMENT AND STORMWATER CONVEYANCE, AS DELINEATED ON THE PLANS, SHALL BE CONSTRUCTED WITH THE TOP OF RIP RAP MATCHING THE PROPOSED ADJACENT GRADE ELEVATIONS. PLACEMENT OF RIP RAP ABOVE THE PROPOSED ADJACENT GRADE ELEVATIONS IS NOT ACCEPTABLE. ALL RIP RAP SHALL BE PLACED ON TYPE HR FILTER FABRIC PER SECTION 645 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURAL CONSTRUCTION.
G. TREES AND SHRUBS: FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, AND HEALTHY LOOKING STOCK. STOCK SHOULD ALSO BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIE TYPE, SIZE, AND LOCATION.
H. TREE AND SHRUB INSTALLATION: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMP TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY. PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
I. TREE AND SHRUB MAINTENANCE/WARRANTY: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
J. MINERAL MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
   PLASTIC EDGING: INSTALL VALLEY VIEW INDUSTRIES BLACK DIAMOND LAWN EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE 5.5" TALL WITH METAL STAKES INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
B. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL.
C. SANITARY MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN-CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SANITARY MANHOLE FRAME AND GRATE TO BE NEENAH R-1661-A (WATER TIGHT) OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE IN DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
D. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY SERVICE AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 6" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (Z-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS REQUIREMENTS.
E. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
F. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL PROPOSED STORM PIPE BELOW BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 8' HORIZONTALLY FROM FOUNDATION WALLS.
G. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
H. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN DOWNSPOUT LEADS TO BUILDING FOUNDATION AND UP 6" ABOVE SURFACE GRADE FOR CONNECTION TO DOWNSPOUT. ALL DOWNSPOUT LOCATIONS SHOULD BE VERIFIED WITH ARCHITECTURAL PLANS AND DOWNSPOUT CONTRACTOR/GC PRIOR TO INSTALLATION OF DOWNSPOUT LEADS. DOWNSPOUT LEADS SHALL NOT UNDERMINE BUILDING FOUNDATIONS. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
I. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
J. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER, SANITARY AND STORM SEWER.
K. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

10 GAUGE COPPER TRACER WIRE ON PUBLIC UTILITIES

SDR 26

Table A: Allowable Pipe Material Schedule

Utility	Material	Pipe Code	Fitting Code	Joint Code
Water Lateral - Yard Hydrant	C901/906 PE - SDR 9, 200 psi, CTS	AWWA C901/C906	ASTM D2609, ASTM D2683, ASTM D3261	Heat fusion: ASTM D2657
Combined Domestic/Fire Service	C900 PVC	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Public Water Main Only American-made fittings, pipe, valves, and hydrants will be allowed	C900 PVC, Class 150, SDR 18	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Private Sanitary Sewer	SDR 35 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Public Sanitary Sewer (18")	SDR 26 PVC	ASTM F-679 PS115	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Storm Sewer	HDPE	ASTM F2648	ASTM F2306 Saddle Gasket	Joint: ASTM F2648 Bell & Spigot Elastomeric Seal: ASTM F477
Storm Sewer/Culvert	RRCP-Class III	ASTM C14, ASTM C76, AASHTO M170		ASTM C443 Rubber Gasket
Storm Sewer	SDR 26 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Pavement Underdrain	Single Wall HDPE-Socked	ASTM F667	ASTM F667	ASTM D1056 Grade 2A2 Gasketed

CIVIL SPECIFICATION SHEET

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3306 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

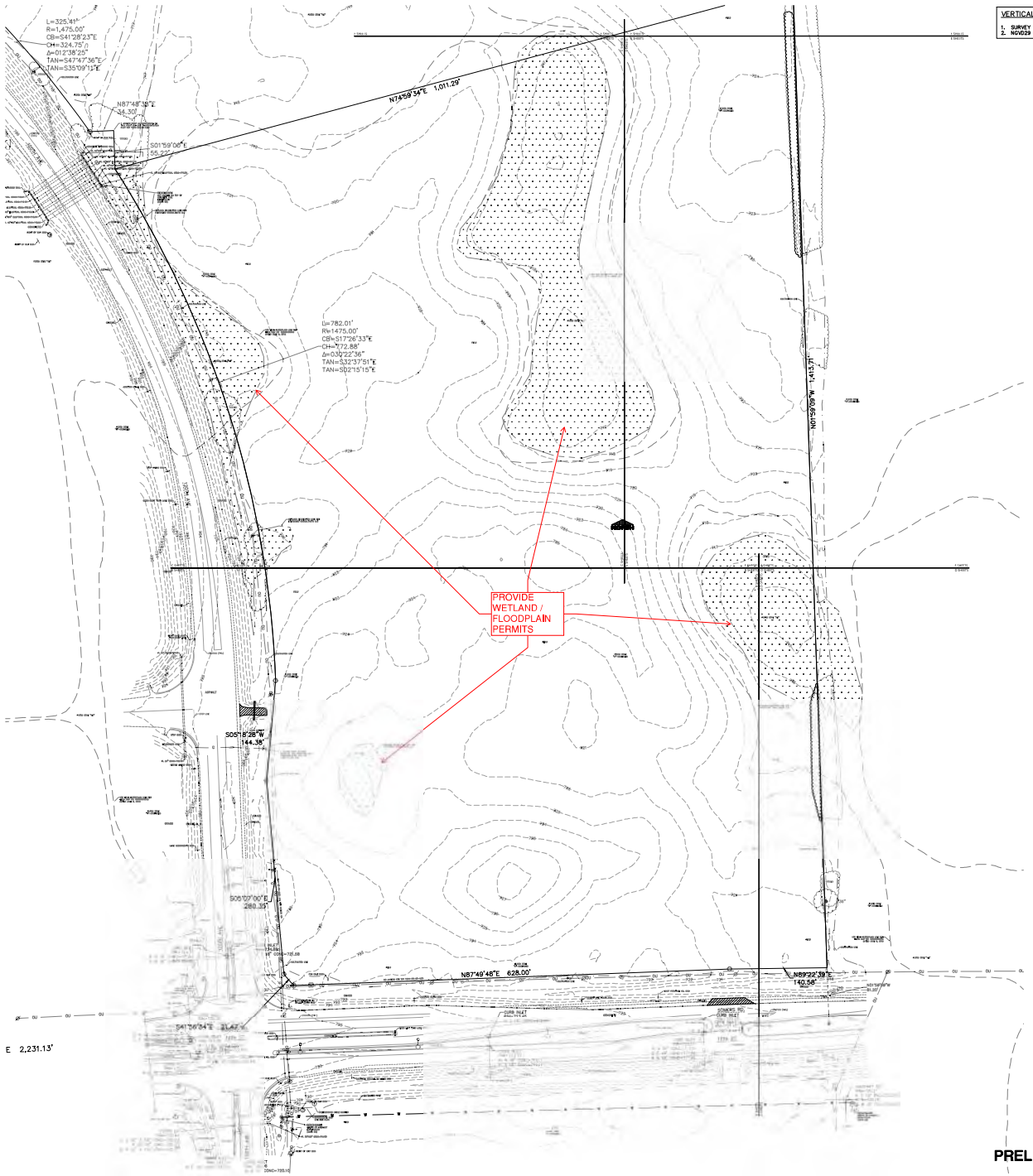
GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: -------
SUPERVISOR: -------
PRELIMINARY NO: P22188
CONTRACT NO: -------
DATE: APR. 26, 2024
SHEET: C0.2



VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

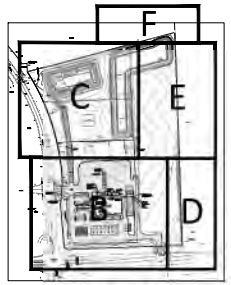
GENERAL PROJECT NOTES

WISDOT ALSO

1. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2139603, BY ASSURE SUMMIT TITLE, INC., DATED JUNE 27, 2023, AS UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGERS HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES AND MARKINGS BY DIGGERS HOTLINE. THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND PLAN DATA. WHERE UTILITIES ARE IN THE EXACT LOCATION INDICATED, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.



KEY PLAN

NORTH

1" = 60' SCALE 60' 0 60' 120' FEET

EXISTING SITE AND DEMOLITION PLAN - OVERALL

EXCEL JOB #: 2266000

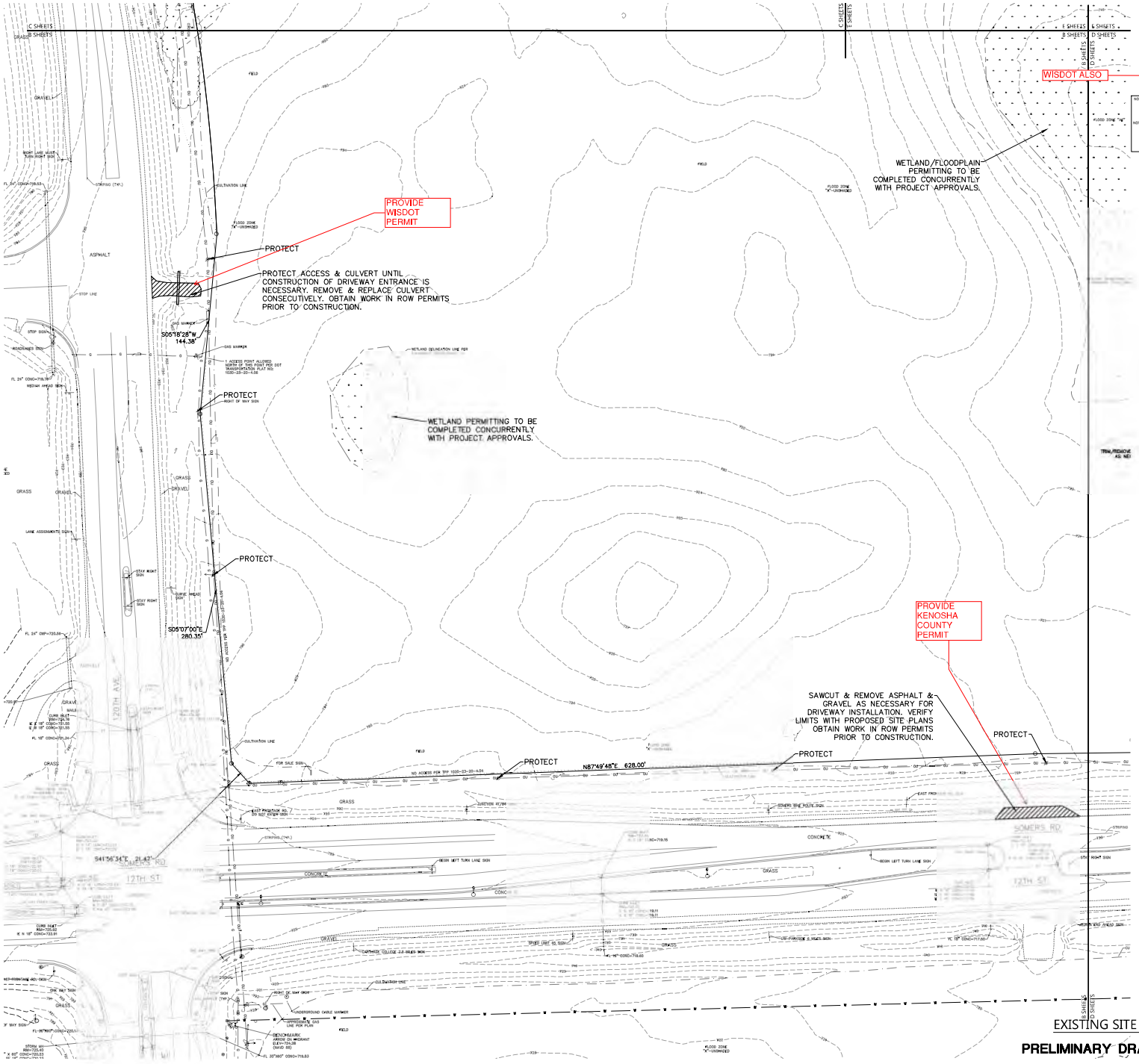
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
TEN EYCK: 7216 Seal Road SE, P.O. Box 529, Kenosha, WI 53142, PHONE: (262) 764-1700
MADISON: 6308 Mineral Point Road, Middleton, WI 53562, PHONE: (608) 836-2345
MILWAUKEE: W194 N11589 Goldendale Rd, Germantown, WI 53022, PHONE: (262) 255-8700
RACINE: 6200 Lake Ave, Racine, WI 53402, PHONE: (262) 898-1131, FAX: (262) 898-1191
1-800-242-2024
WI: 0088 039-6960
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	
SUPERVISOR:	
PRELIMINARY NO:	P22188
CONTRACT NO:	
DATE:	APR. 26, 2024
SHEET:	C1.0A

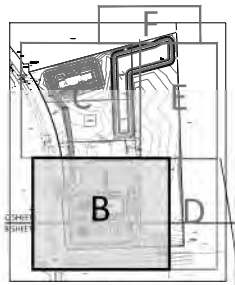


Keller
PLANNERS | ARCHITECTS | BUILDERS
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE: APR. 26, 2024
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.0B



KEY PLAN
NTS

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

1. ALL DRIVEWAYS AND CURB CUTS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS FROM ALL REQUIRED ENTITIES.
3. CONTRACTOR TO COORDINATE WITH EXCEL ENGINEERING FOR COMPLETION OF FOUNDATION SURVEY PER VILLAGE OF SOMERS REQUIREMENTS AS FOLLOWS: ANY PERSON ERECTING, MOVING, ENLARGING OR RECONSTRUCTING A STRUCTURE, WHICH, UNDER THIS ORDINANCE, REQUIRES A ZONING PERMIT SHALL UPON COMPLETION OF THE CONSTRUCTION OF FOOTINGS, CONCRETE SLAB OR OTHER FOUNDATIONS, SUBMIT TO THE DEPARTMENT OF [illegible] AND OPERATIONS, STANDARDS, HORIZONTAL CLEARANCE AND SIZE OF THE STRUCTURE. THE BOUNDARIES OF THE LOT, ALL EXISTING STRUCTURES (INCLUDING FOUNDATIONS) AND ANY ENCROACHMENT TO THE LOT LINES. ANY ALLEGED DIRECTOR OF PLANNING AND DEVELOPMENT SHALL COMPARE THE LOCATION OF ALL NEW OR EXISTING FOUNDATIONS WITH THE LOCATION OF ALL PROPOSED CONSTRUCTION ACTIVITY REFERRED ON THE PERMIT APPLICATION. NO FURTHER CONSTRUCTION MAY COMMENCE UNLESS THE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL RULE THAT THE FOUNDATION LOCATION IS CONSISTENT WITH THE PERMIT AS ISSUED AND SHALL SO CERTIFY. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION SHALL BE GROUNDS FOR THE REVOCATION OF A PERMIT PURSUANT TO SECTION 24.4(B)(3) OF THIS ORDINANCE, AND ATTORNEY'S FEES.

SITE INFORMATION:

OVERALL PROPERTY: LOT 1 OF CERTIFIED SURVEY MAP NUMBER 3050 BEING PART OF THE NW ¼ NE ¼ AND SE ¼ OF THE SW ¼ S7, T2N, R22E, VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN AS DOCUMENT NUMBER 1948190

PROPERTY AREA – OVERALL: 1,089,000 S.F. (25.000 ACRES).

PROPOSED LOT 1 PROPERTY AREA: 350,969 S.F. (8.057 ACRES).

EXISTING ZONING: A4

PROPOSED ZONING: B3 W/ PUD (LOT 1/4); A4 (LOT 2/3)

PROPOSED USE: LOT 1 – FUEL STATION, C STORE, QUICK SERVE RESTAURANTS (2)

AREA OF SITE DISTURBANCE: ±26 ACRES

SETBACKS: BUILDING: FRONT = 65'
SIDE = 15'
REAR = 25'

PAVEMENT: FRONT = 20'
SIDE = 10'
REAR = 10'

PROPOSED BUILDING HEIGHT: 26'–0" (MAX. HEIGHT ALLOWED: 35'–0")

PARKING REQUIRED:
GAS STATION/STORE AND RESTAURANT: 1 SPACE PER 150 S.F. (98 SPACES REQ.)
EMPLOYEES: 1 SPACE PER EMPLOYEE ON LARGEST WORK SHIFT (10 SPACES REQ.)
TOTAL: 108 SPACES REQUIRED

PARKING PROVIDED: 139 SPACE (6 H.C. ACCESSIBLE)

DRIVE–THRU STACKING REQUIRED: 8 VEHICLES (160') PROVIDED:8 VEHICLES EACH

HANDICAP STALLS REQUIRED: 5, HANDICAP STALLS PROVIDED: 6

HOURS OF OPERATION: 24/7

BUILDING OCCUPANCY CLASSIFICATION = A2, B, M, S1

CLASS OF BUILDING CONSTRUCTION = IIB

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO: 15%
MAXIMUM IMPERVIOUS SURFACE: 85%

SITE PLAN KEYNOTES

8	CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR FINAL LOCATIONS
10	FLUSH WALK W/ BOLLARDS (TYP.)
11	TAPER ASPHALT/CONCRETE 0" TO 6" IN 10'
11A	TAPER WALK 0" TO 6" IN 18'
13	CURB RAMP (TYP.)
14	18" CURB & GUTTER (TYP.)
15	18" MOUNTABLE CURB & GUTTER (TYP.)
16	TAPER CURB (TYP.)
17	CURB CUT (TYP.)
18	CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION PRIOR TO CONSTRUCTION)
19	HANDICAP PIPE BOLLARD (TYP)
20	HANDICAP STALL & STRIPING PER STATE CODES.
21	MONUMENT SIGN (FINAL DETAILS, LOCATION, & APPROVAL BY SIGN VENDOR)
22	PYLON SIGN (FINAL DETAILS, LOCATION, & APPROVAL BY SIGN VENDOR)
23	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
24	6" CONCRETE BOLLARDS (TYP)
25	STOP SIGN (TYP.)
26	FLAGPOLES – FINAL TYPE, COLOR, HEIGHT, LOCATION, ETC. BY SUPPLIER IN COORDINATION W/ OWNER. (2) 25' OUTSIDE POLES & (1) 30' INSIDE POLE
28	DETECTABLE WARNING PLATE
29	TRAFFIC FLOW ARROWS. COLOR TO MATCH PARKING STALL STRIPING.
30	DIRECTIONAL SIGNAGE. FINAL DETAILS BY SIGN SUPPLIER
33	DRIVE–THRU MENU BOARD (SEE TENANT'S SPECS)
34	DRIVE–THRU ORDER SCREEN (SEE TENANT'S SPECS)
35	DO NOT ENTER SIGN & PAVEMENT MARKINGS (TYP)
40	PAVEMENT MARKINGS (TYP)
41	REMOTE FDC & HYDRANT CONCRETE PUMPER PAD (PER VILLAGE DETAIL)
43	CONCRETE TANKAGE PAD (TYP). VERIFY PAD/TANK DESIGN/SIZE/LAYOUT WITH CONTRACTOR AND TANK SUPPLIER PRIOR TO CONSTRUCTION.
44	CUSTOMER PRODUCT STORAGE (TYP). VERIFY FINAL LOCATIONS OF ICE CHEST FREEZERS, FIREWOOD STORAGE, PROPANE TANK STORAGE, ETC. W/ OWNER & SUPPLIERS PRIOR TO CONSTRUCTION.
45	PUMP CANOPY (TYP). VERIFY FINAL SIZE & DESIGN WITH CONTRACTOR/PUMP & CANOPY SUPPLIER PRIOR TO CONSTRUCTION.
46	ELECTRIC VEHICLE CHARGING AREA & CANOPY (TYP). VERIFY FINAL DESIGN & SETBACK WITH ELECTRIC VEHICLE SUPPLIER PRIOR TO CONSTRUCTION.
47	OVERHEAD CANOPY STRUCTURE (TYP). SEE ARCH PLANS FOR DETAILS.
48	BUILDING CANOPY (TYP). SEE ARCH PLANS FOR DETAILS.
49	DRIVE–THRU CLEARANCE BAR (DETAIL BY SUPPLIER)
50	FLOW THROUGH CURB (SEE DETAIL)
(XX)	IDENTIFICATION KEYNOTE ITEM(QUANTITY) – IF NO () = QUANTITY IS 1

PAVEMENT MATERIAL KEY:
STANDARD ASPHALT
HEAVY DUTY ASPHALT
SIDEWALK CONCRETE
LIGHT DUTY CONCRETE
HEAVY DUTY CONCRETE
DUMPSTER PAD CONCRETE

CURB & GUTTER MARKING KEY:
INVERTED CURB & GUTTER
SHEDDING CURB & GUTTER

SCALE 1"= 30' — 30' 0 30' 60' FEET

NORTH

SITE PLAN - SOUTHWEST
EXCEL JOB # 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

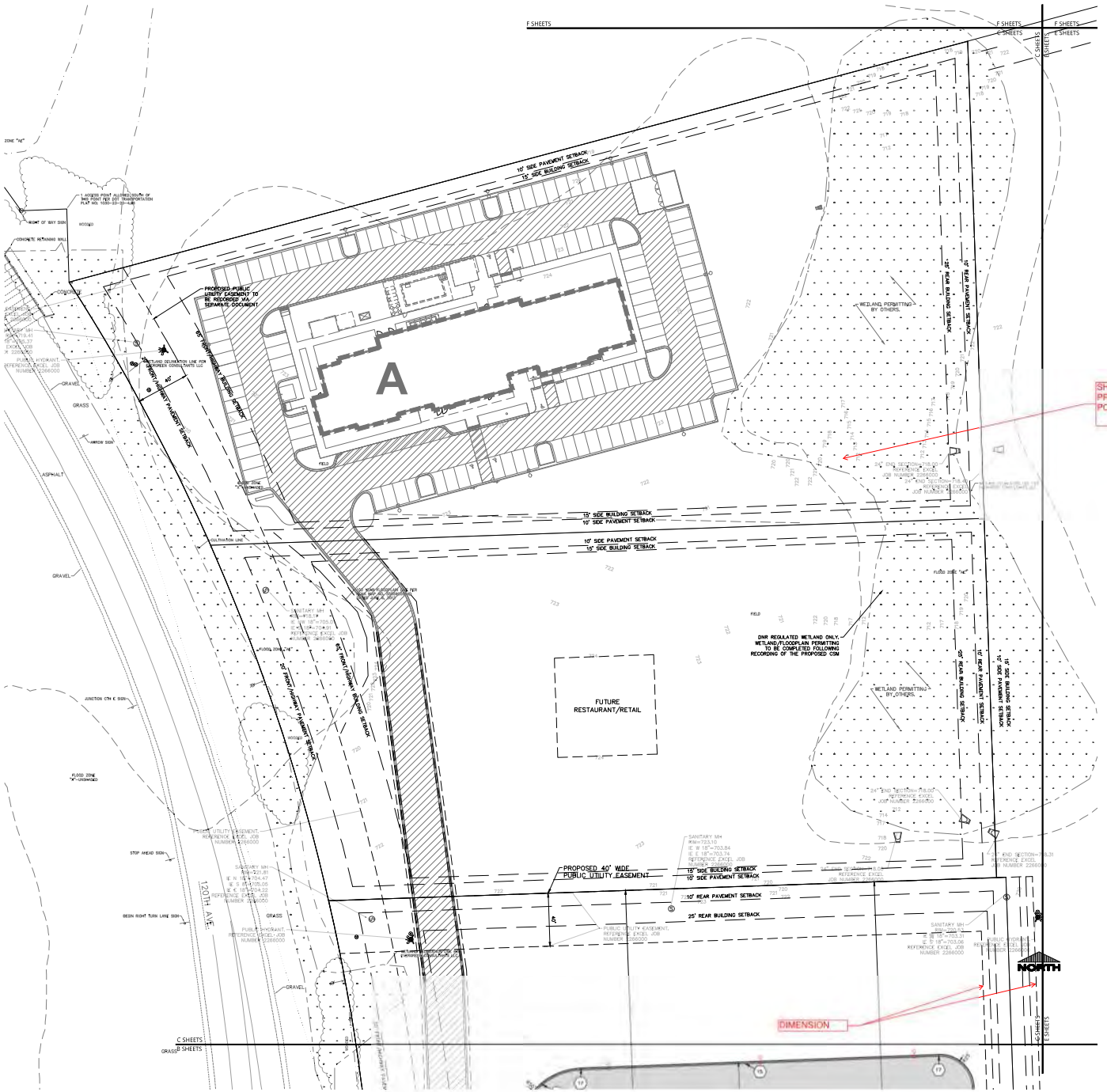
Keller
PLANNERS | ARCHITECTS | BUILDERS
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

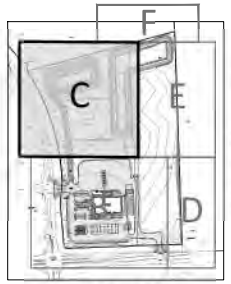
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.1B



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN
SPECIFICATIONS AND REQUIREMENTS



KEY PLAN

Keller
PLANNERS | ARCHITECTS | BUILDERS
1-800-225-2000
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

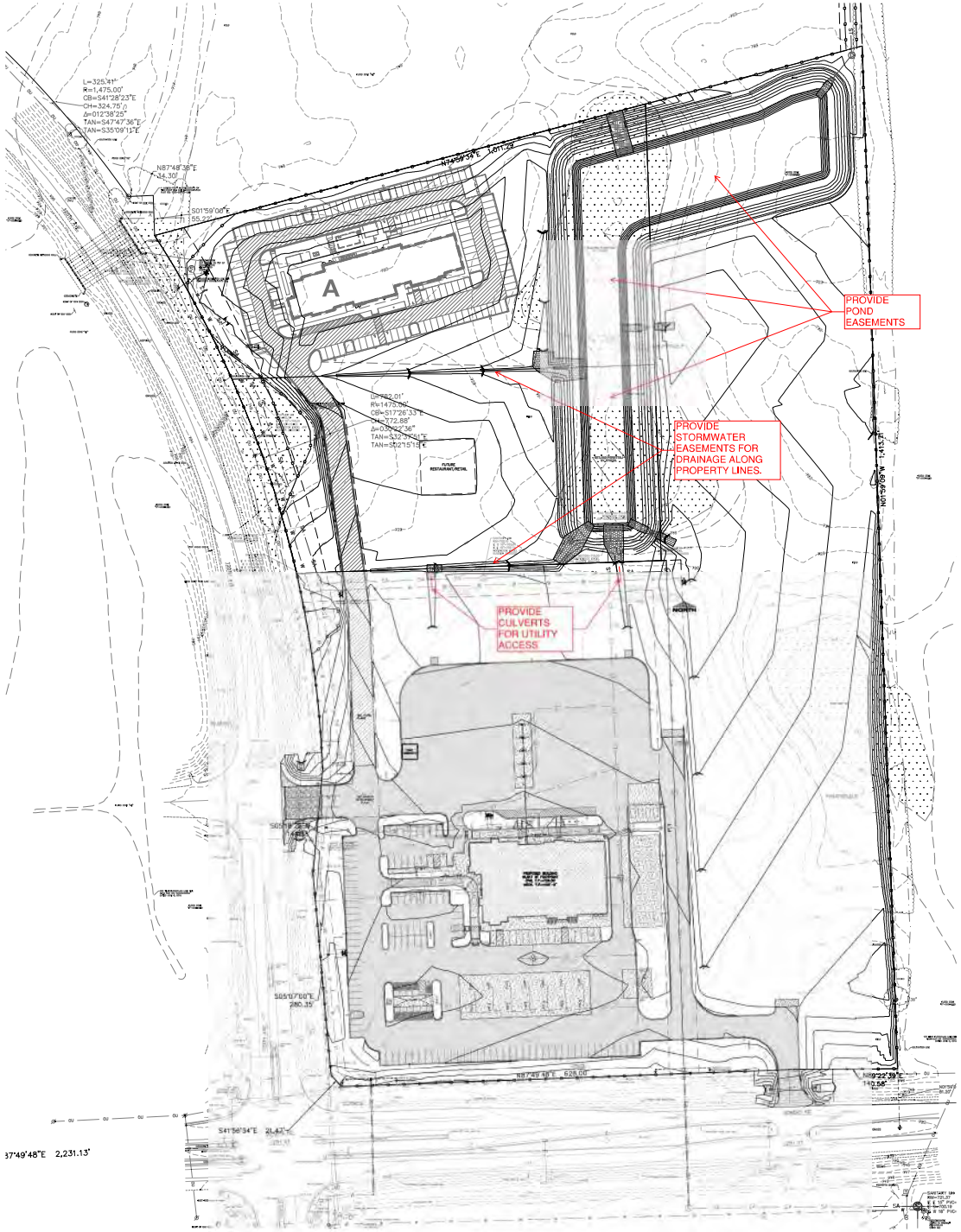
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	
SUPERVISOR:	
PRELIMINARY NO:	P22188
CONTRACT NO:	
DATE:	APR. 26, 2024
SHEET:	C1.1C

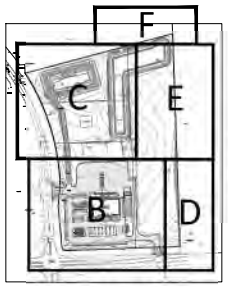
NORTH
1" = 30' SCALE 30' 0 30' 60' FEET

SITE PLAN - NORTHWEST
EXCEL JOB # 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS
TOM OFFICE:
3214 Deer Road St
P.O. Box 529
Kimberly, WI 54136
PHONE: (920) 788-7500
FAX: (920) 788-7504
MILWAUKEE:
W204 N11589
Goldendale Rd
Germantown, WI 53022
PHONE: (262) 255-8700
MADISON:
6508 Odana Rd
Madison, WI 53719
PHONE: (608) 848-5440
1-800-236-2004
EMAIL: info@kellerbuilds.com
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

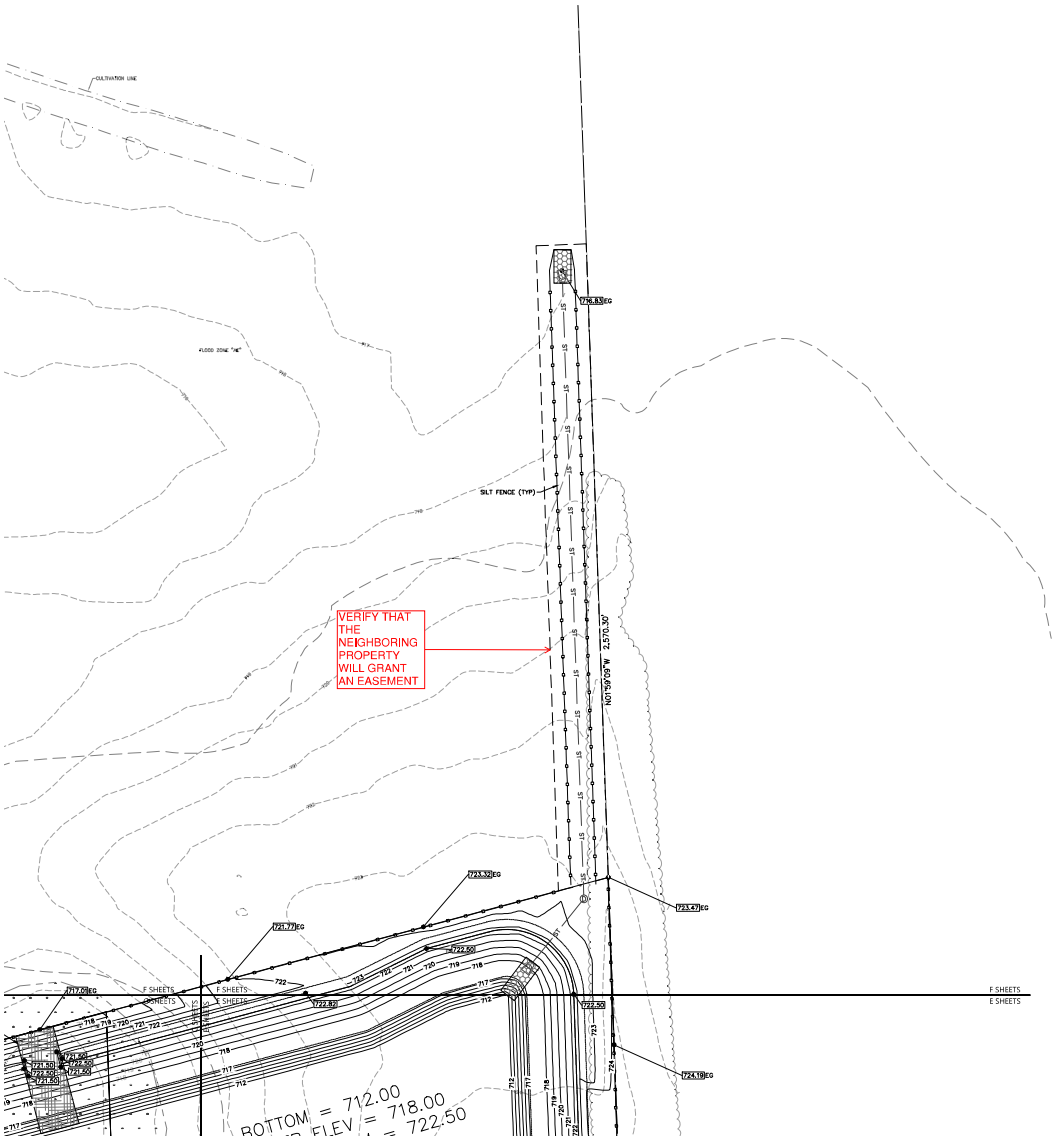
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	
SUPERVISOR:	
PRELIMINARY NO:	P22188
CONTRACT NO:	
DATE:	APR. 26, 2024
SHEET:	C1.2A

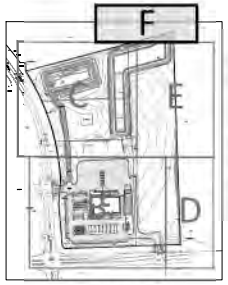
NORTH
1"= 60' SCALE 60' 0 60' 120' FEET

GRADING AND EROSION CONTROL PLAN - OVERALL
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



SPECIFICATION NOTE:
SEE SHEET CO.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

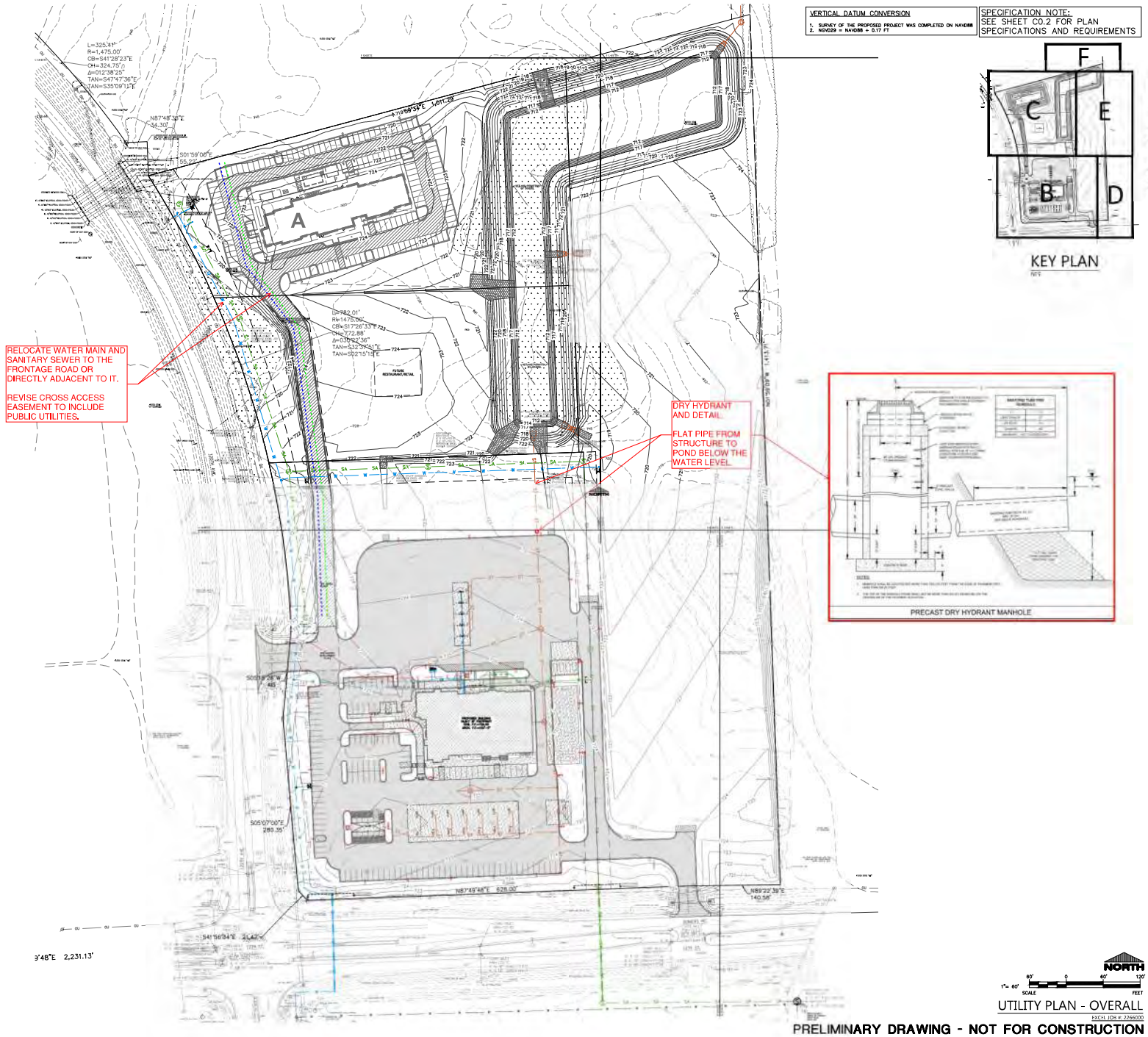
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

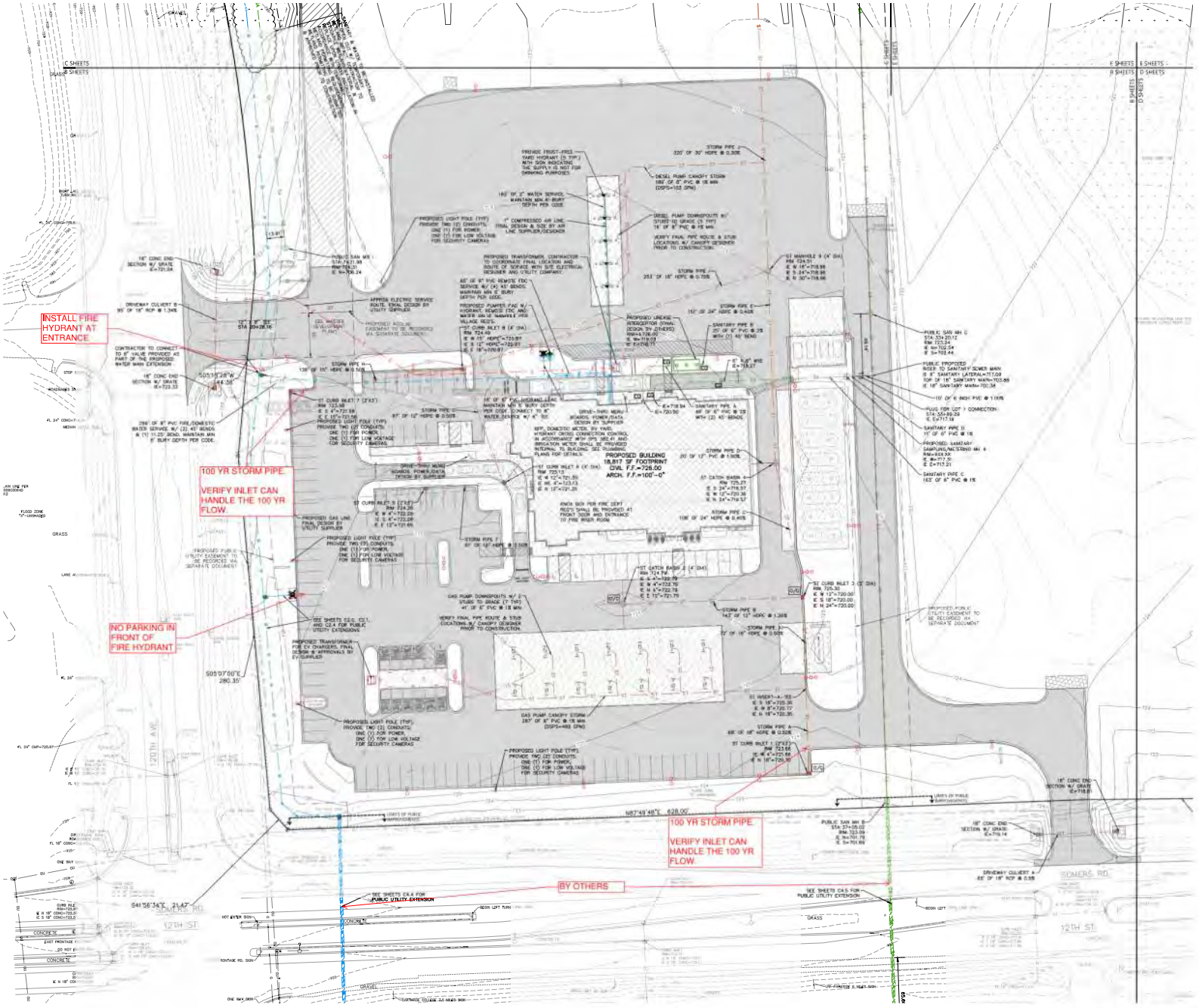
PRELIMINARY PLAN DATE: APR. 26, 2024
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.2F

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

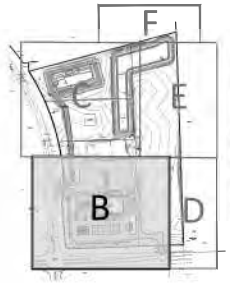
GRADING AND EROSION CONTROL PLAN - NORTH
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION


VERTICAL DATUM CONVERSION
1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT
SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS
RELOCATE WATER MAIN AND SANITARY SEWER TO THE FRONTAGE ROAD OR DIRECTLY ADJACENT TO IT.
REVISE CROSS ACCESS EASEMENT TO INCLUDE PUBLIC UTILITIES.
DRY HYDRANT AND DETAIL
FLAT PIPE FROM STRUCTURE TO POND BELOW THE WATER LEVEL
PRECAST DRY HYDRANT MANHOLE
KEY PLAN
A
B
C
D
E
F
NORTH
SCALE
FEET
UTILITY PLAN - OVERALL
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION
Keller
PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS
WISCONSIN
"COPYRIGHT NOTICE"
PRELIMINARY PLAN DATE
APR. 26, 2024
PROJECT MANAGER:
N. LAURENT
DESIGNER:
R. LINDSTROM
DRAWN BY:
EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO:
P22188
CONTRACT NO:
DATE:
APR. 26, 2024
SHEET:
C1.3A



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

DOWNSPOUT NOTE:
DS = DENOTES DOWNSPOUT TO GRADE LOCATIONS. PROVIDE SPLASH BLOCKS AT ALL DS TO GRADE LOCATIONS. SEE ARCH PLANS FOR FINAL LOCATIONS.

CLEANOUT NOTE:
CO = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL CLEANOUTS, SEE C0.2 FOR SPECIFICATION.

OIL/GREASE INLET PROTECTION NOTE:
O/G = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL FLEX STORM PURE FILTER OR EQ.

LIGHTPOLE NOTE:
PROVIDE TWO (2) CONDUITS AT EACH LIGHT POLE:
ONE (1) FOR POWER,
ONE (1) FOR LOW VOLTAGE FOR SECURITY CAMERAS

VERTICAL DATUM CONVERSION
1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

NORTH
1"= 30' SCALE
30' 0 30' 60' FEET

UTILITY PLAN - SOUTHWEST
EXCEL JOB #: 2266000

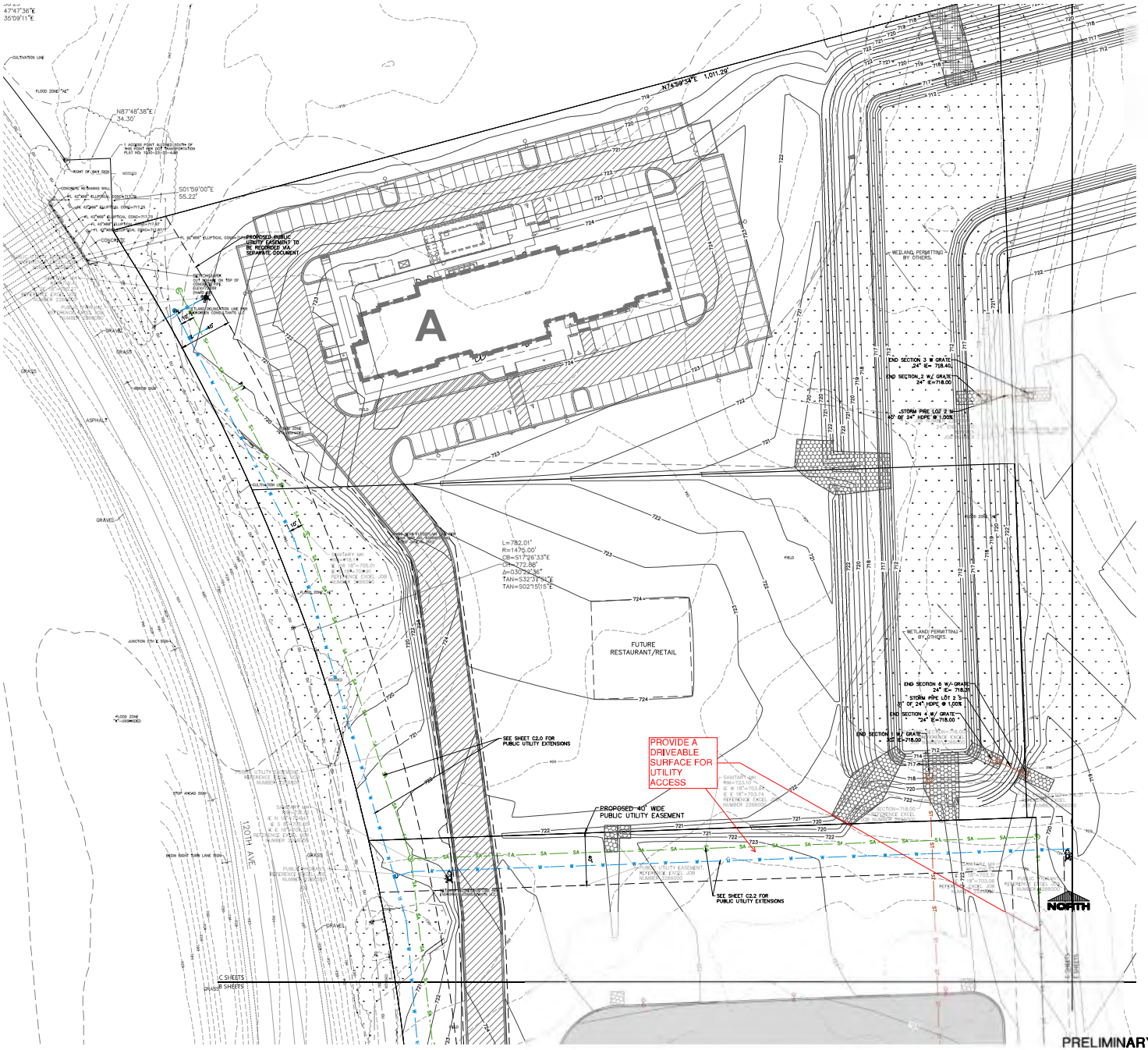
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
TOMAH OFFICE: 1214 Total Road St, P.O. Box 529, Tomah, WI 54660, PHONE: (608) 374-4763, 1-800-236-0194, FAX: (608) 374-2104
MADISON: 6508 Odana Road, Madison, WI 53719, PHONE: (608) 848-2340
MILWAUKEE: W194 N11599 Goldendale Rd, Germantown, WI 53022, PHONE: (262) 255-8700
WAUSAU: 2600 Stewart Ave, Wausau, WI 54401, PHONE: (715) 845-2101, FAX: (715) 845-2191
1-800-236-0194
INC 000 339-6900
www.kellerbuilds.com

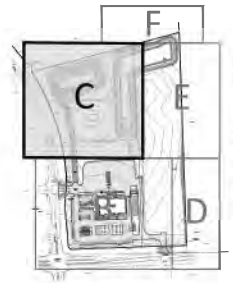
PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	
SUPERVISOR:	
PRELIMINARY NO:	P22188
CONTRACT NO:	
DATE:	APR. 26, 2024
SHEET:	C1.3B



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN

VERTICAL DATUM CONVERSION

1. SURVEY OF THE IMPROVED PROJECT WAS COMPLETED IN WISCONSIN
2. NGVD29 + 1.81 FEET = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	--------
SUPERVISOR:	--------
PRELIMINARY NO:	P22188
CONTRACT NO:	--------
DATE:	APR. 26, 2024
SHEET:	C1.3C

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

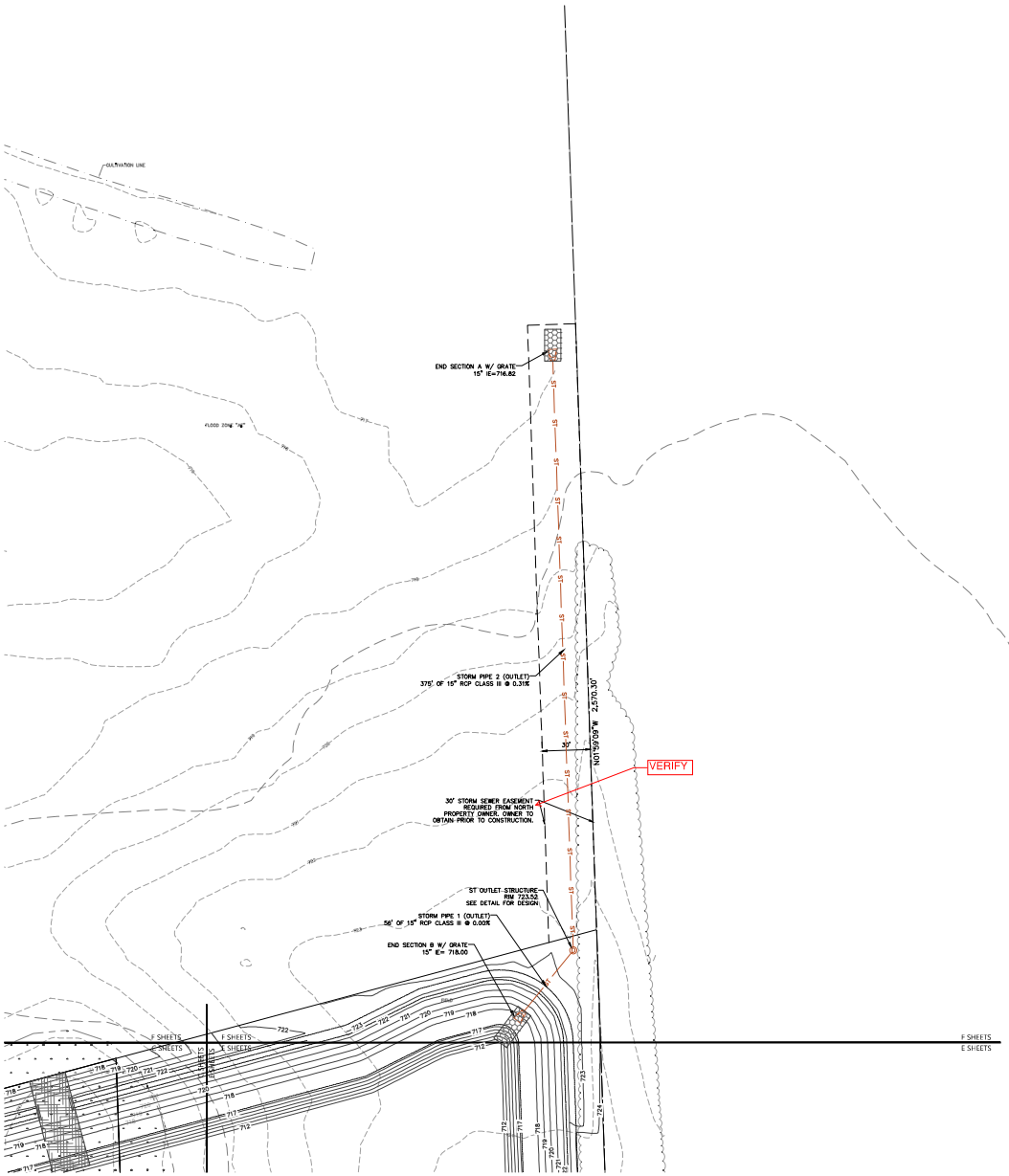
UTILITY PLAN - NORTHWEST
EXCEL JOB # 2266000

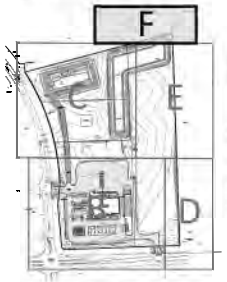
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS





KEY PLAN

Keller

PLANNERS | ARCHITECTS | BUILDERS

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

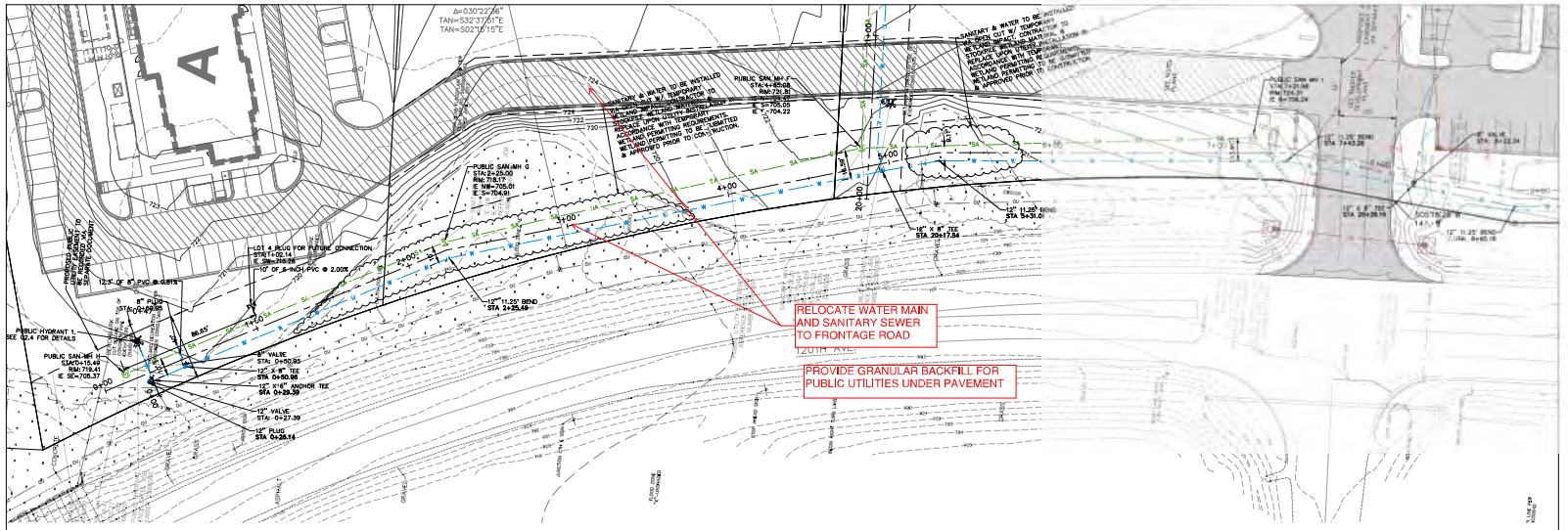
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.3F

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

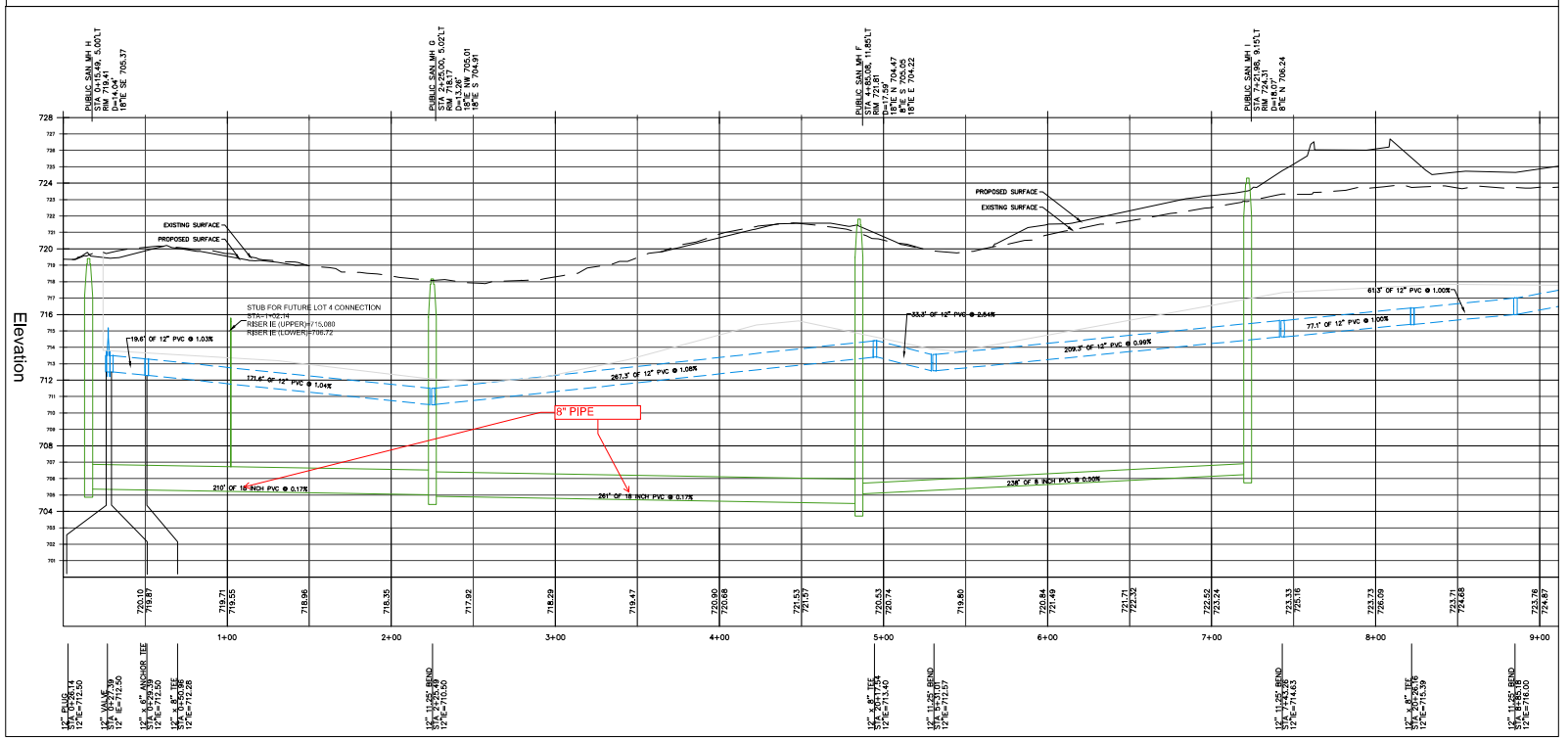
UTILITY PLAN - NORTH
EXCEL JOB # 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



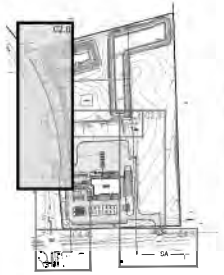
PLAN VIEW

SCALE 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NAVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 0+00-9+00

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

NORTH

SCALE 1"= 30' — 30' 0 30' 60' FEET

Keller

PLANNERS | ARCHITECTS | BUILDERS

TEN EYCK: 1216 Main Street W, P.O. Box 529, Baldwin, WI 54002, PHONE: (800) 762-4761, FAX: (715) 684-2104

MADISON: 6508 Mineral Point Road, Middleton, WI 53562, PHONE: (608) 836-2565

MILWAUKEE: W194 N11589 Goldendale Rd, Germantown, WI 53022, PHONE: (262) 255-8700

WAUSAU: 6501 Lilac Ave, Wausau, WI 54401, PHONE: (715) 845-1101, FAX: (715) 845-3101

1-800-552-3098
INC 088 289-8960

www.hallerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE: APR. 26, 2024

PROJECT MANAGER: N. LAURENT

DESIGNER: R. LINDSTROM

DRAWN BY: EXCEL ENGINEERING

EXPEDITOR:

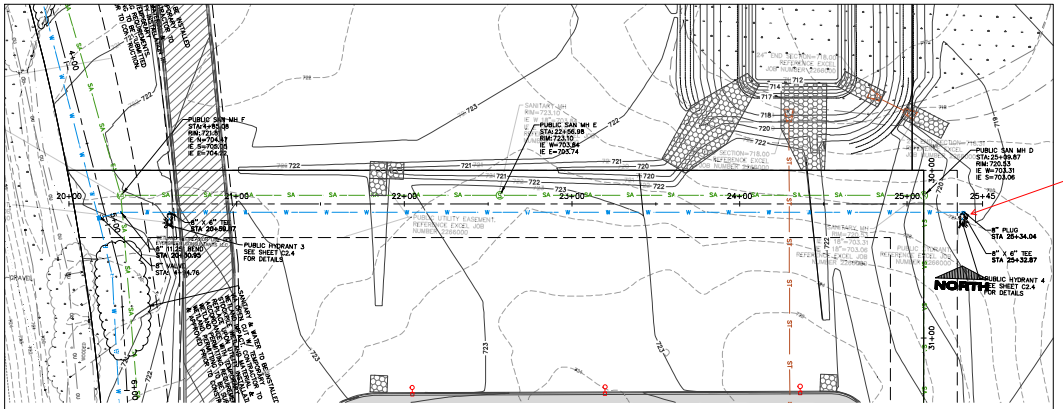
SUPERVISOR:

PRELIMINARY NO: P22188

CONTRACT NO:

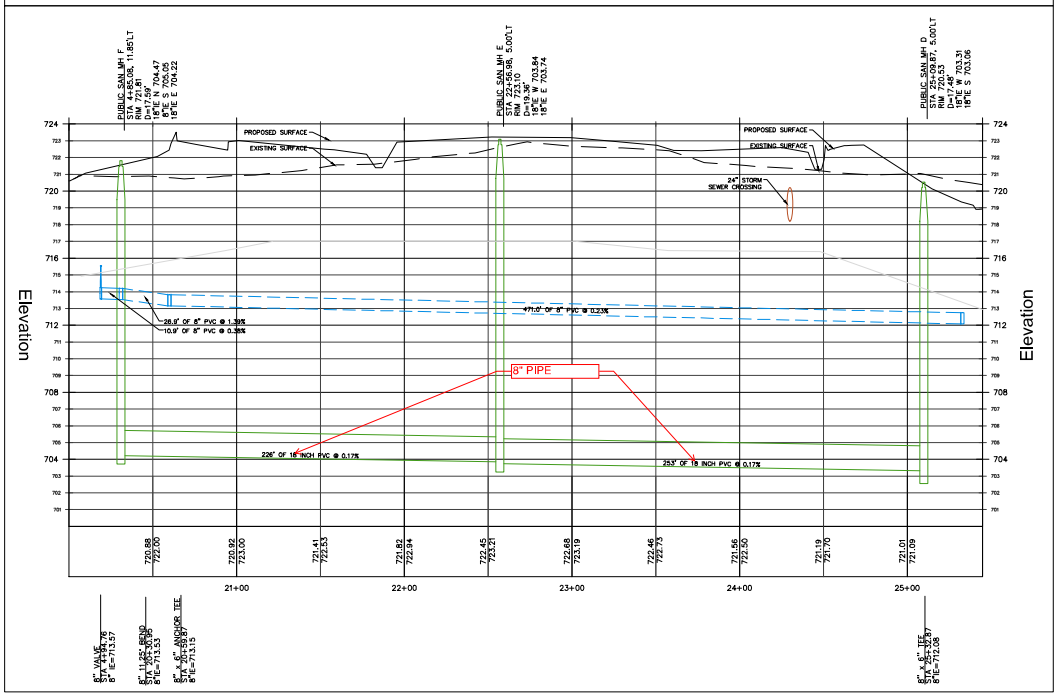
DATE: APR. 26, 2024

SHEET: C2.0



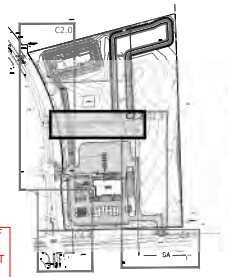
PLAN VIEW

SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'



MOVE END OF WATER MAIN AND HYDRANT WITHIN EASEMENT

PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 20+00-25+45

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
TEK OFFICE:
N216 State Road 35
P.O. Box 529
Hartland, WI 53029
PHONE: (262) 367-3762
FAX: (262) 367-2734
MADISON:
6508 Odana Road
Madison, WI 53719
PHONE: (608) 833-7530
MILWAUKEE:
W164 N11189
Commerce Dr
Germantown, WI 53022
PHONE: (262) 255-8700
MADISON:
6508 Odana Road
Madison, WI 53719
PHONE: (608) 833-7530
1-800-252-3929
WI: 055 105-0940
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE: APR. 26, 2024

PROJECT MANAGER: N. LAURENT

DESIGNER: R. LINDSTROM

DRAWN BY: EXCEL ENGINEERING

EXPEDITOR: --------

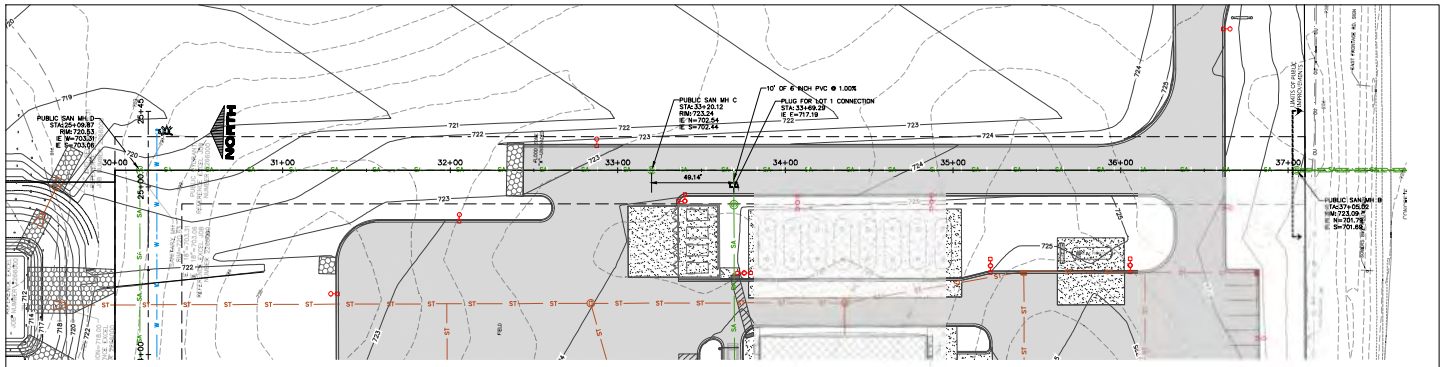
SUPERVISOR: --------

PRELIMINARY NO: P22188

CONTRACT NO: --------

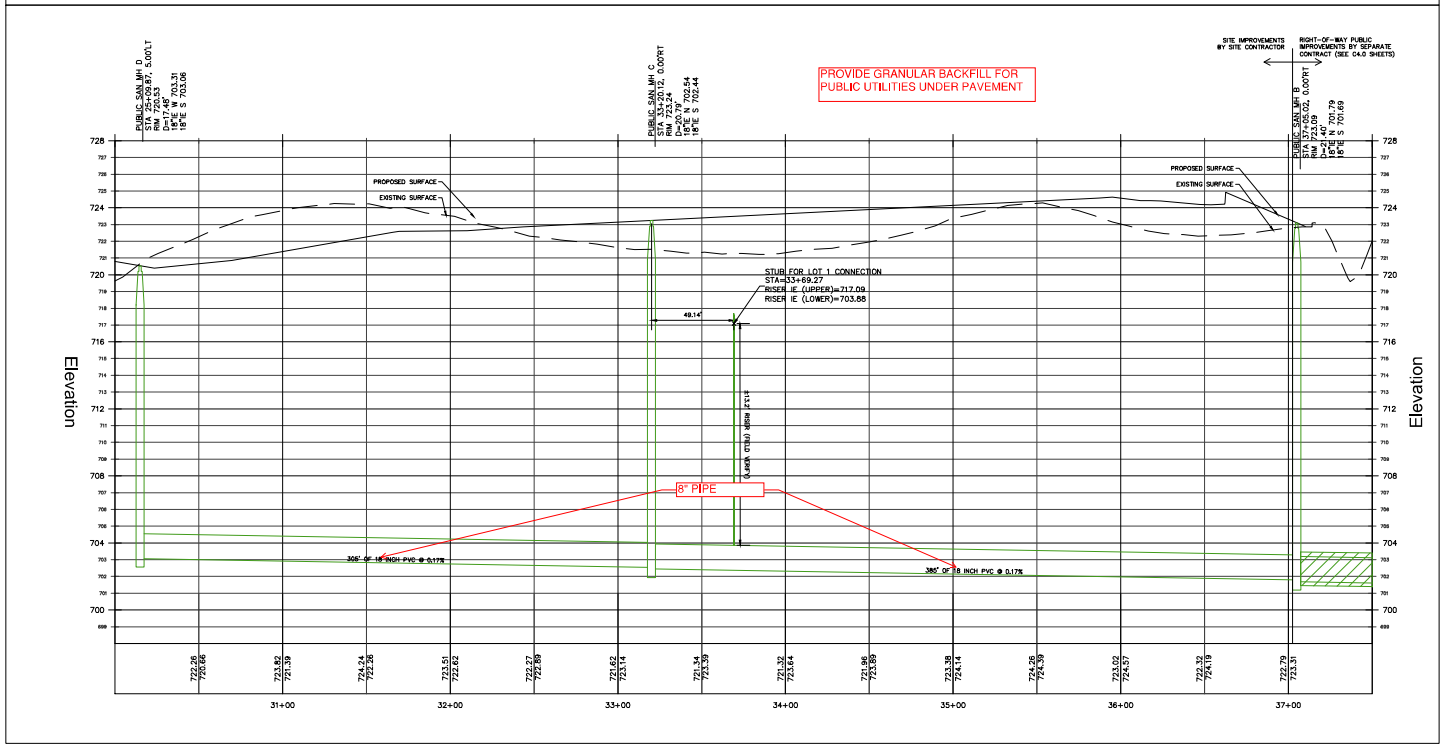
DATE: APR. 26, 2024

SHEET: C2.2



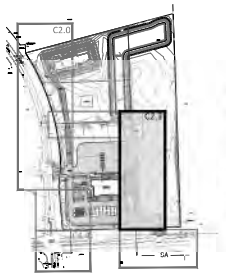
PLAN VIEW

SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=5'



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 30+00-37+06

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
TEXAS OFFICE
7215 Bosh Road Ste
P.O. Box 529
Hardwick, TX 76102
PHONE: (940) 458-6761
1-800-733-3134
FAX: (940) 765-2104
WISCONSIN
W994 N71599
Cedarburg Rd
Cedarburg, WI 53012
PHONE: (262) 376-9700
MINNESOTA
6500 Lilac Ave
Woodbury, MN 55125
PHONE: (651) 845-5100
FAX: (612) 845-3101
1-800-352-2004
MN: (651) 329-8900
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

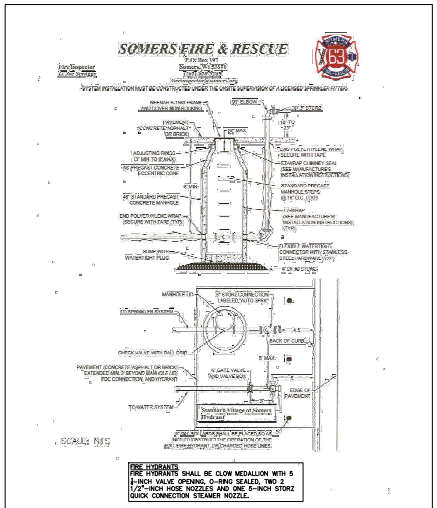
GOLDEN OIL - SOMERS GATEWAY CENTER

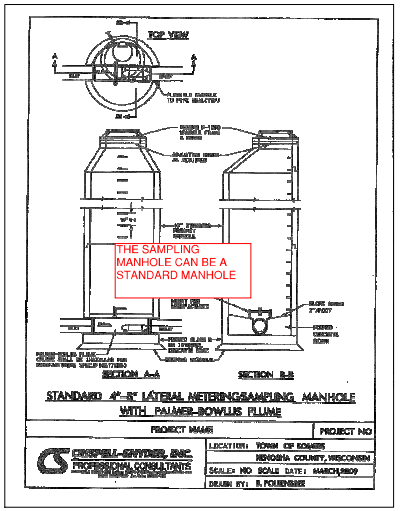
SOMERS WISCONSIN

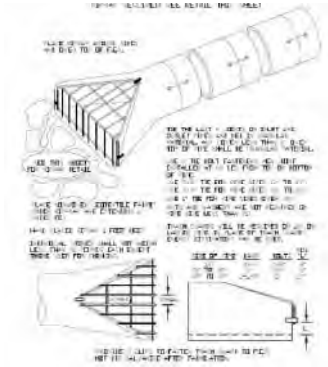
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

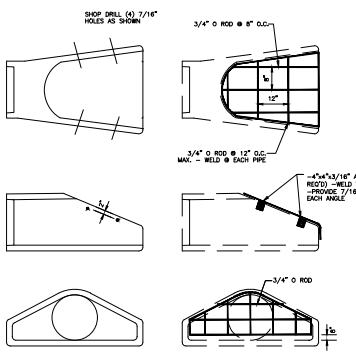
PRELIMINARY PLAN DATE: APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C2.3



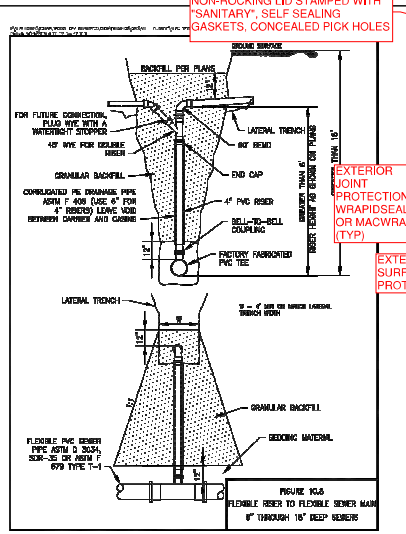


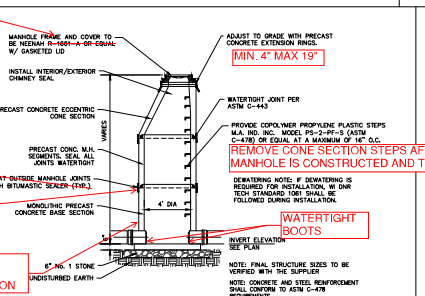

CONCRETE END SECTION DETAIL
NO SCALE



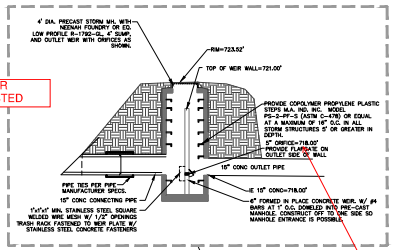
GRATE INSTALLATION DETAIL
NO SCALE

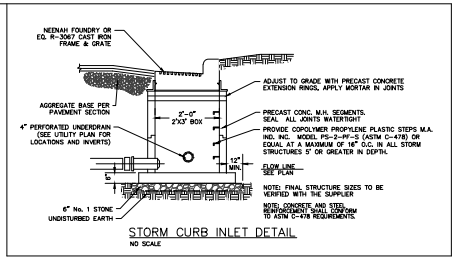
SPECIFICATION NOTE:
SEE SHEET CO.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS





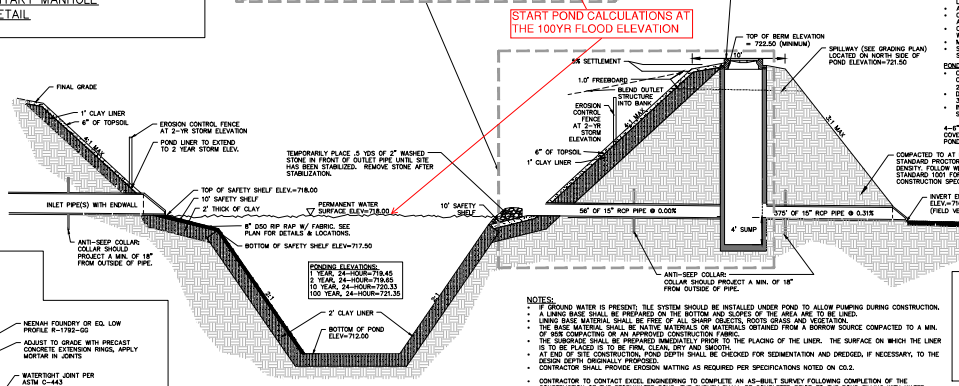
PUBLIC/PRIVATE SANITARY MANHOLE W/ CONE SECTION DETAIL
NO SCALE





STORM CURB INLET DETAIL
NO SCALE

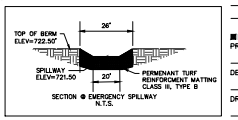
START POND CALCULATIONS AT THE 100YR FLOOD ELEVATION



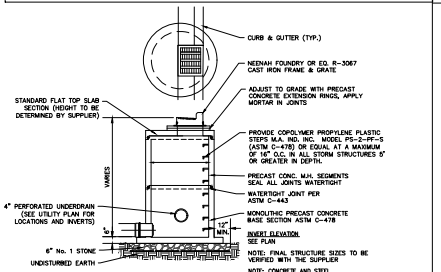
WET RETENTION POND
NO SCALE

NOTES:
- IF GROUND WATER IS PRESENT; TILE SYSTEM SHOULD BE INSTALLED UNDER POND TO ALLOW PUMPING DURING CONSTRUCTION.
- A LINING BASE SHALL BE PREPARED ON THE BOTTOM AND SLOPES OF THE AREA ARE TO BE LINED.
- LINING BASE MATERIAL SHALL BE FREE OF ALL SHARP OBJECTS, ROOTS GRASS AND VEGETATION.
- THE BASE MATERIAL SHALL BE NATIVE MATERIALS OR MATERIALS OBTAINED FROM A BORROW SOURCE COMPACTED TO A MIN. OF 95% COMPACTING OR AN APPROVED CONSTRUCTION.
- THE SUBGRADE SHALL BE PREPARED IMMEDIATELY PRIOR TO THE PLACING OF THE LINER. THE SURFACE ON WHICH THE LINER IS TO BE PLACED IS TO BE FIRM, CLEAN, DRY AND SMOOTH.
- AT END OF SITE CONSTRUCTION, POND DEPTH SHALL BE CHECKED FOR SEDIMENTATION AND DREDGED, IF NECESSARY, TO THE DESIGN DEPTH ORIGINALLY PROPOSED.
- CONTRACTOR SHALL PROVIDE EROSION MATTING AS REQUIRED PER SPECIFICATIONS NOTED ON CO.2.
- CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE STORMWATER POND. THE SURVEY SHALL BE COMPLETED PRIOR TO THE POND FILLING WITH WATER. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE. PLEASE NOTE THAT THE HORIZONTAL TOLERANCE FOR POND CONSTRUCTION IS 0.50' AND THE VERTICAL TOLERANCE FOR POND, OUTLET, AND SPILLWAY CONSTRUCTION IS 0.10'. ANY ADDITIONAL WORK REQUIRED TO SURVEY A POND FULL OF WATER OR FOR SURVEYING FOLLOWING REWORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

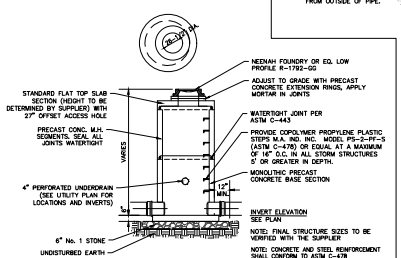
OVERALL STORMWATER FACILITY DETAIL
NO SCALE



NORTH EMERGENCY SPILLWAY DETAIL
NO SCALE



STORM CURB INLET W/ ROUND STRUCTURE DETAIL
NO SCALE



STORM CATCH BASIN DETAIL
NO SCALE

DETAILS
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
FOX CITIES
MADISON
MILWAUKEE
WAUSAU
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

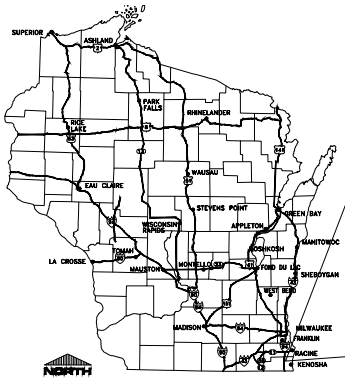
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C3.1

PROPOSED PUBLIC IMPROVEMENT PLANS FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

LEGEND

PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)	EXISTING CONIFEROUS TREE
EXISTING GRADE SPOT ELEVATIONS	EXISTING SHRUB
PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG–FINISHED SURFACE GRADE AT BACK OF WALL FG–FINISHED SURFACE GRADE AT FRONT OF WALL	EXISTING STUMP
	SOIL BORING
PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)	EXISTING WELL
	PROPOSED WELL
PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)	PROPOSED LIGHT POLE
	EXISTING LIGHT POLE
EXISTING WATER VALVE IN BOX	PROPOSED SIGN
PROPOSED WATER VALVE IN BOX	EXISTING SIGN
EXISTING WATER VALVE IN MANHOLE	CENTER LINE
EXISTING WATER SERVICE VALVE	EXISTING HANDICAP PARKING STALL
EXISTING TELEPHONE MANHOLE	PROPOSED HANDICAP PARKING STALL
EXISTING STORM CATCH BASIN	EXISTING GAS VALVE
PROPOSED STORM CATCH BASIN – ST CB	EXISTING WOODED AREA
PROPOSED STORM FIELD INLET – ST FI	EXISTING HEDGE
EXISTING SQUARE CATCH BASIN	EXISTING CHAINLINK FENCE
EXISTING STORM CURB INLET	EXISTING WOOD FENCE
PROPOSED STORM CURB INLET – ST CI	EXISTING BARBED WIRE FENCE
EXISTING UTILITY POLE	PROPOSED PROPERTY LINE
EXISTING UTILITY POLE WITH GUY WIRE	EXISTING GUARD RAIL
EXISTING STREET LIGHT	EXISTING STORM SEWER AND MANHOLE
EXISTING TELEPHONE PEDESTAL	PROPOSED STORM SEWER AND MANHOLE – ST MH
EXISTING ELECTRIC PEDESTAL	EXISTING SANITARY SEWER AND MANHOLE
EXISTING ELECTRIC BOX	PROPOSED SANITARY SEWER AND MANHOLE – SAN MH
EXISTING CABLE TV PEDESTAL	EXISTING WATER LINE AND HYDRANT
	PROPOSED WATER LINE AND HYDRANT
PROPOSED DRAINAGE FLOW	EXISTING OVERHEAD UTILITY LINE
1-1/4" REBAR SET WEIGHING 4.30 LB/FT.	EXISTING UNDERGROUND FIBER OPTIC LINE
3/4" REBAR SET WEIGHING 1.50 LB/FT.	EXISTING UNDERGROUND ELECTRIC CABLE
1-1/4" REBAR FOUND	EXISTING UNDERGROUND TELEPHONE CABLE
3/4" REBAR FOUND	EXISTING UNDERGROUND GAS LINE
2" IRON PIPE FOUND	PROPOSED CURB AND GUTTER
1" IRON PIPE FOUND	EXISTING CURB AND GUTTER
EXISTING FLOOD LIGHT	GRADING/SEEDING LIMITS
SECTION CORNER	RIGHT-OF-WAY LINE
PROPOSED APRON END SECTION	INTERIOR PROPERTY LINE
EXISTING MARSH AREA	RAILROAD TRACKS
EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER	EXISTING GROUND CONTOUR
EROSION MATTING	PROPOSED GROUND CONTOUR
PROPOSED INLET PROTECTION	



LOCATION MAP

PROJECT LOCATION MAP

CIVIL SHEET INDEX

SHEET	SHEET TITLE
C4.0	CIVIL COVER SHEET
C4.1	CIVIL SPECIFICATION SHEET
C4.2	VILLAGE OF SOMERS - RANDOMIZED MATERIAL SPECIFICATION CHECKLIST
C4.3	SITE, GRADING, EROSION CONTROL, & RESTORATION PLAN
C4.4	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 12+00 - 14+01
C4.5	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 37+00 - 42+28
C4.6	DETAILS

PROJECT LOCATION MAP

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED) 1-800 542-2289
WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.WILGREEN@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

GENERAL PROJECT NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS. ALL WORK IN THE ROW SHALL CONFORM TO KENOSHA COUNTY STANDARDS & SPECIFICATIONS.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.
3. CONTRACTOR SHALL OBTAIN AND FOLLOW THE VILLAGE OF SOMERS DEVELOPMENT STANDARDS DATED APRIL 3,2018 AND STANDARD MATERIAL SPECIFICATION CHECKLIST DATED JULY 2023 FOR ALL CONSTRUCTION REQUIREMENTS. IF DISCREPANCIES ARE NOTICED, CONTRACTOR SHALL CONFORM TO VILLAGE OF SOMERS REQUIREMENTS.
4. CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY OF THE PROPOSED WATER MAIN AND SANITARY MAINS FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE PUBLIC MAINS. THE CONTRACTOR SHALL TAKE ADEQUATE FIELD NOTES, PICTURES, ETC AND PROVIDE TO THE ENGINEER OF RECORD FOR COMPLETION OF THE RECORD DRAWINGS. THE RECORD DRAWINGS SHALL BE COMPLETED AND SUBMITTED TO THE VILLAGE ENGINEER PRIOR TO THE PROPERTY DEVELOPER'S REQUEST FOR FINAL INSPECTION OF THE IMPROVEMENTS. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE FOR SURVEYING.
7. IF DEWATERING IS REQUIRED FOR INSTALLATION OF UTILITIES OR OTHER IMPROVEMENTS FOR THE PROPOSED PROJECT, THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT AND OBTAIN THE NECESSARY WISCONSIN DISCHARGE ELIMINATION SYSTEM (WPDES) PERMITS FOR DEWATERING AS REQUIRED/NECESSARY BY THE WISCONSIN DNR. DEWATERING SHALL BE IN ACCORDANCE WITH WI DNR TECH STANDARD 1061.

CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
	2. PLACE ALL SILT FENCE.
	3. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS AS NECESSARY.
2. CONSTRUCTION ACTION	1. INSTALL PUBLIC UTILITIES.
	2. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS.
3. POST CONSTRUCTION ACTION	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

CONTACTS

OWNER
SOMERS GATEWAY CENTER, LLC
9170 39TH AVE
KENOSHA, WI 53142
CONTACT: PAUL SHARDWAY
P: (262) 492-1625

DEVELOPER
KELLER BUILDS, INC
W234 N1159 OCONOMOWOC RD
OCONOMOWOC, WI 53066
CONTACT: NATHAN LAURENT
P: (262) 894-3812
F: (262) 560-9745

CIVIL
EXCEL ENGINEERING
100 CHARLOTT DRIVE
FOND DU LAC, WISCONSIN 54935
CONTACT: DENNI WINTER, P.E.
P: (920) 926-9800
F: (920) 926-9801

CIVIL COVER SHEET

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
FOX CITIES
MADISON
MILWAUKEE
WAUSAU
www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE: APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C4.0

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
D. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
E. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
F. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY ________________.
G. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER.
H. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
   TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
B. SEEDED LAWNS:
   1. PERMANENT LAWN AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS./1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS./1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.). STRAW AND MULCH SHALL BE LAID AT 100LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   2. ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES AS WELL AS STORMWATER MANAGEMENT BASIN BOTTOMS AND SIDE SLOPES SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS./1000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   3. ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 1.9 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
C. SEEDED LAWN MAINTENANCE: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"X5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
D. EROSION MATTING:
   1. CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER OUTSIDE OF STORMWATER CONVEYANCE SWALES AND STORMWATER MANAGEMENT BASINS. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
   2. CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS WELL AS STORMWATER MANAGEMENT BASIN BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
B. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL.
C. SANITARY MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN-CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SANITARY MANHOLE FRAME AND GRATE TO BE NEENAH R-1661-A (WATER TIGHT) OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE IN DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
D. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
E. SANITARY AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
F. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
G. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER AND SANITARY SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER AND SANITARY.
H. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

10 GAUGE TRACER WIRE

THE VILLAGE WILL SPECIFY MATERIALS IN THE SPEC BOOK FOR THE PUBLICLY BID PORTION.

ADD CERTA-LOK PIPE

Table A: Allowable Pipe Material Schedule

Utility	Material	Pipe Code	Fitting Code	Joint Code
Public Water Main Only American-made fittings, pipe, valves, and hydrants will be allowed	C900 PVC, Class 150, SDR 18	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Public Sanitary Sewer	SDR 26 PVC	ASTM F-679 PS115	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Directionally Drill/Jack & Bore- Public Water Main Public Sanitary Main	Pressure HDPE	AWWA C906 (DR-11) ASTM D3350	AWWA C906, ASTM D2609, ASTM D2683, ASTM D3261	Butt Fusion Welded

CIVIL SPECIFICATION SHEET

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3306 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

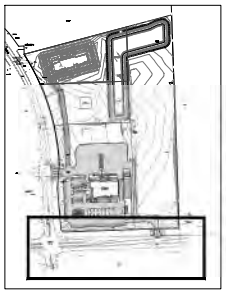
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: -------
SUPERVISOR: -------
PRELIMINARY NO: P22188
CONTRACT NO: -------
DATE: APR. 26, 2024
SHEET: C4.1

GENERAL NOTES:

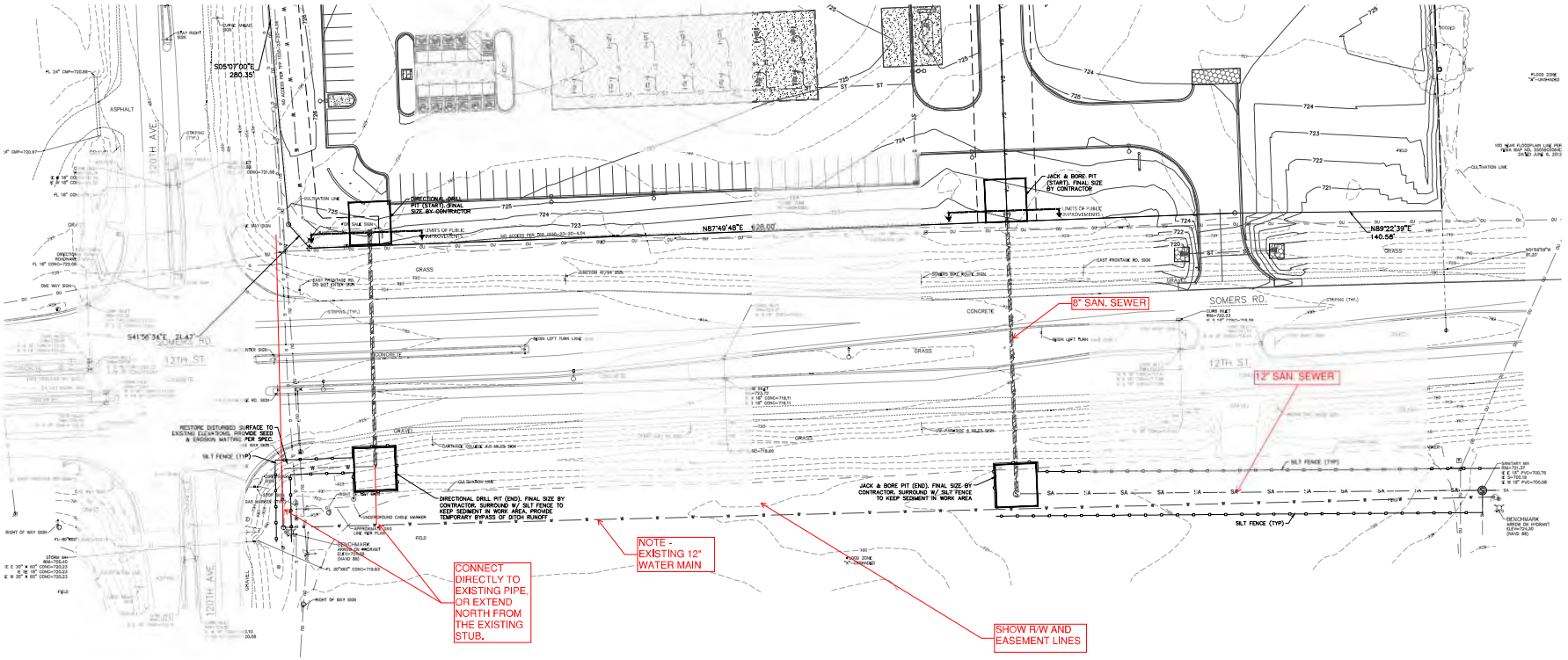
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS (INSIDE & OFFSITE) IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT



KEY PLAN
NTS



NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

SITE, GRADING, EROSION CONTROL, AND RESTORATION PLAN
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

TOM OFFICE
7216 Bald Eagle Dr
P.O. Box 634
Middleton, WI 53562
PHONE: (608) 836-4763
1-800-236-4763
FAX: (608) 836-1444

MADISON
6508 Mineral Point Road
Middleton, WI 53562
PHONE: (608) 836-4763

MILWAUKEE
W204 N11589
Goldendale Rd
Germantown, WI 53022
PHONE: (262) 255-8700

WAUSAU
1005 Lilac Ave
Wausau, WI 54401
PHONE: (715) 845-2101
FAX: (715) 845-2191

1-800-236-4763
INC. 0183 329-0960
www.kellerbuilds.com

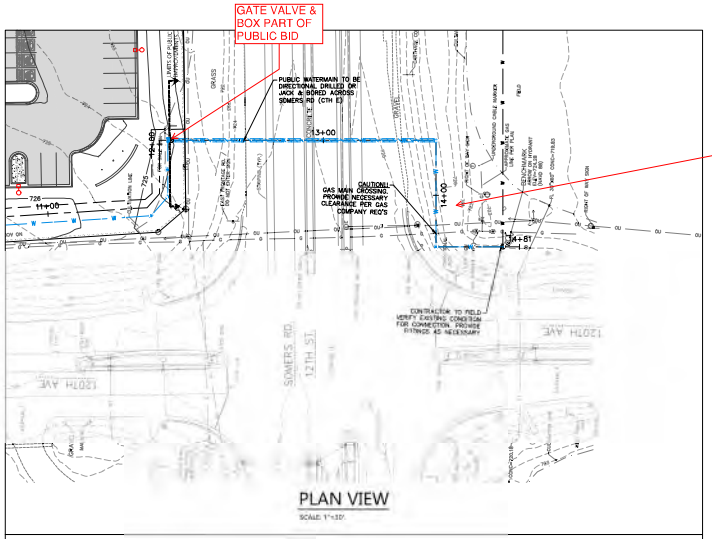
PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

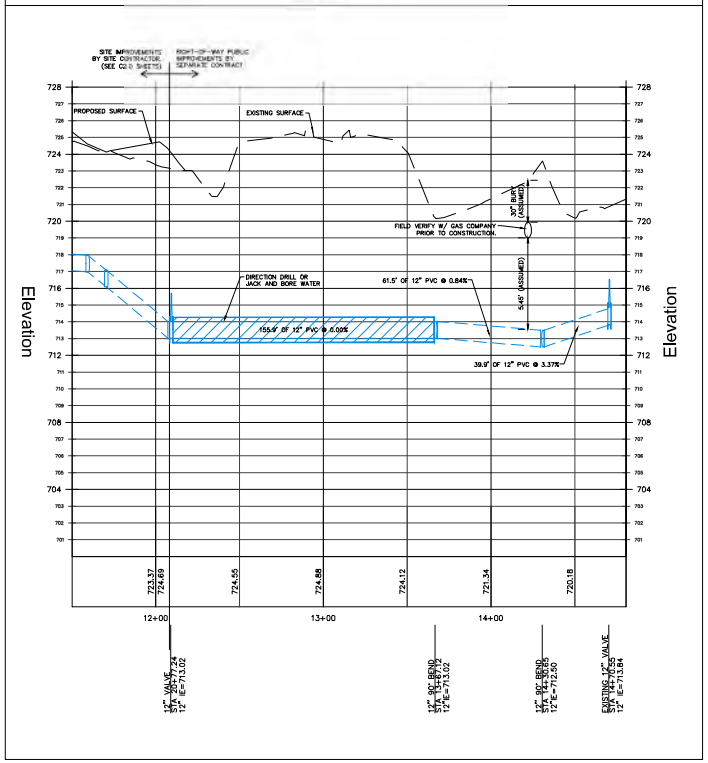
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	
SUPERVISOR:	
PRELIMINARY NO:	P22188
CONTRACT NO:	
DATE:	APR. 26, 2024
SHEET:	C4.3



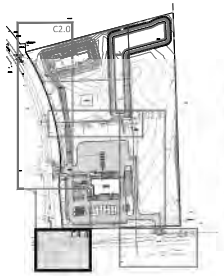
PLAN VIEW

SCALE: 1"=10'



PROFILE VIEW

HORIZONTAL: 1"=10'
VERTICAL: 1"=3'



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURV...
2. NGVD...

Keller
PLANNERS | ARCHITECTS | BUILDERS
TEN OFFICES
3214 Deer Road St
P.O. Box 529
Baraboo, WI 53913
PHONE: (608) 356-6761
1-800-236-2134
FAX: (608) 356-2104
MADISON
6508 Odana Road
Madison, WI 53719
PHONE: (608) 848-2540
MILWAUKEE
W194 N11589
Goldendale Rd
Germantown, WI 53022
PHONE: (262) 255-8700
WAUSAU
1005 Lilac Ave
Wausau, WI 54401
PHONE: (715) 845-3101
FAX: (715) 845-3191
1-800-236-2134
FAX: (608) 356-6940
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C4.4

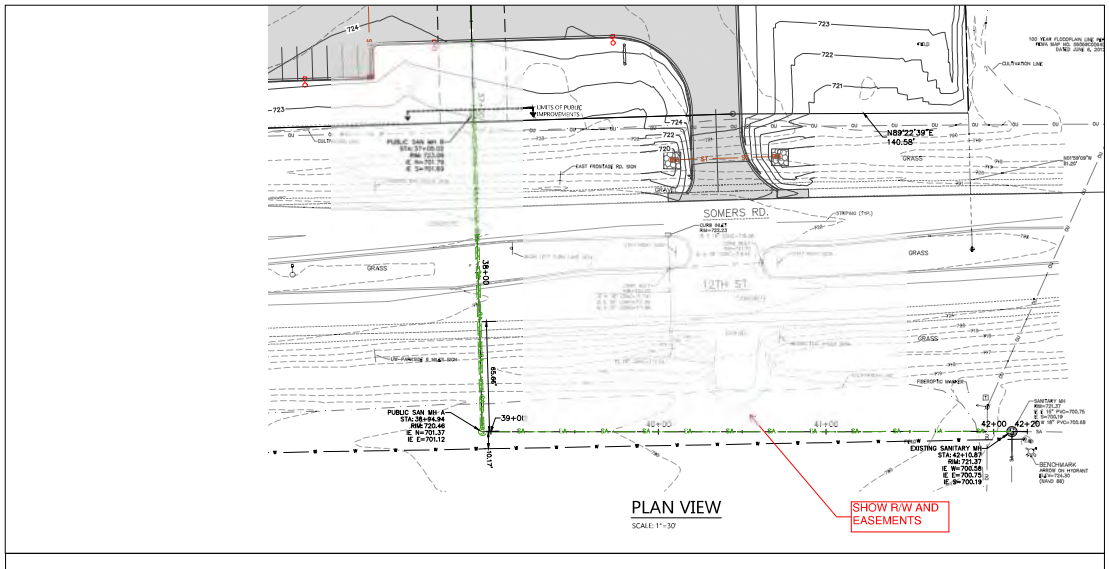
NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 12+08-14+81

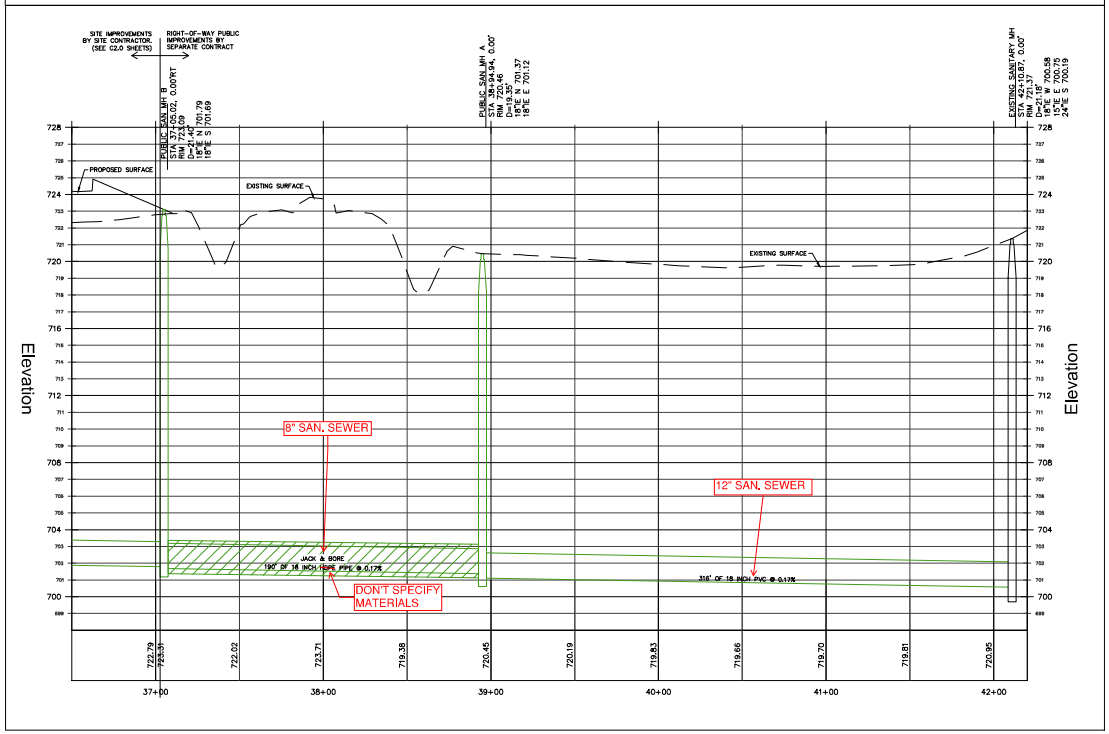
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



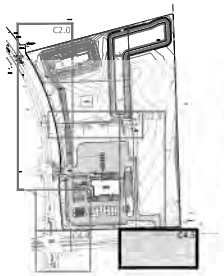
PLAN VIEW

SCALE: 1" = 30'



PROFILE VIEW

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY
2. NGVD

Keller

PLANNERS | ARCHITECTS | BUILDERS

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C4.5

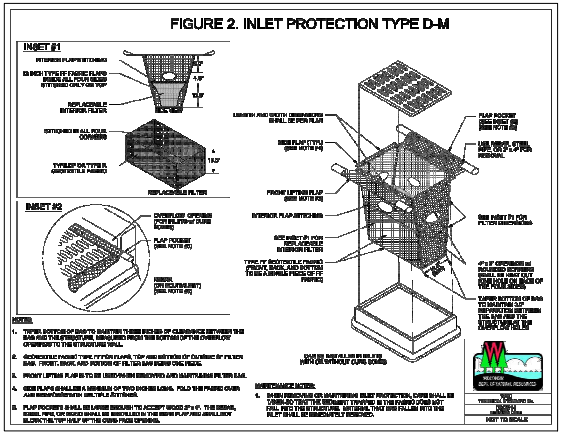
NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

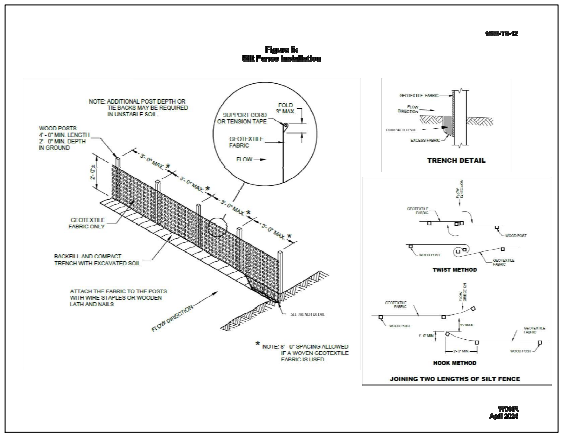
PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 37+06 - 42+20

EXCEL JOB #: 2266000

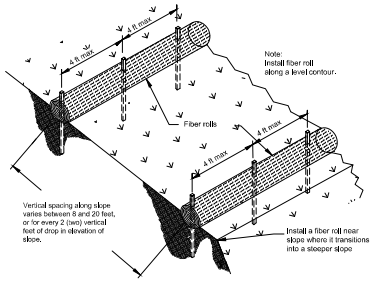
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



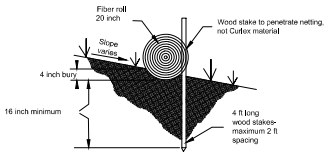
INLET PROTECTION DETAIL
NO SCALE



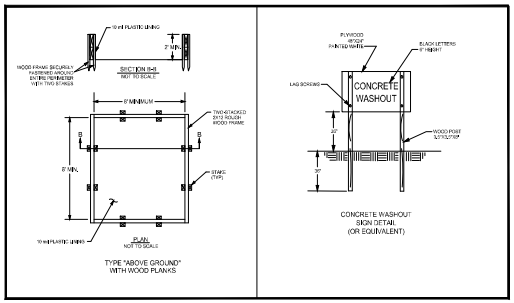
SILT FENCE – INSTALLATION DETAIL
NO SCALE



TYPICAL FIBER ROLL INSTALLATION
N.T.S.

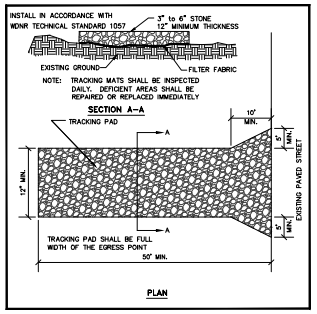


SEDIMENT LOG INSTALLATION
NOT TO SCALE



CONTRACTOR TO ADHERE TO MI DNR STANDARDS

CONCRETE WASHOUT DETAIL
NO SCALE



TRACKPAD DETAILS
NO SCALE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1053 (CHANNEL EROSION MAT).

VARIATIONS IN THE DIMENSIONS OR MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.

LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.

JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.

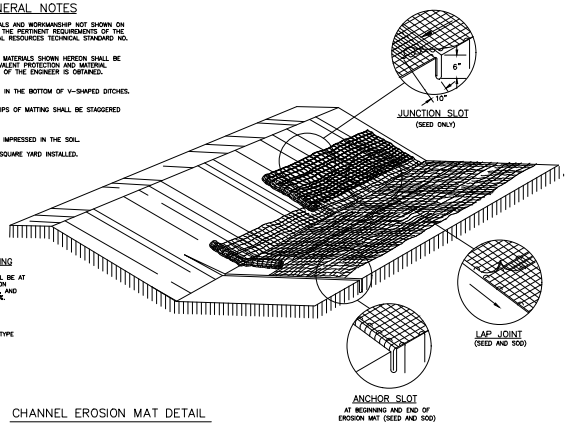
EDGES OF EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

EROSION MAT SHALL PAID BY THE SQUARE YARD INSTALLED.

EROSION MAT OVER SEEDING

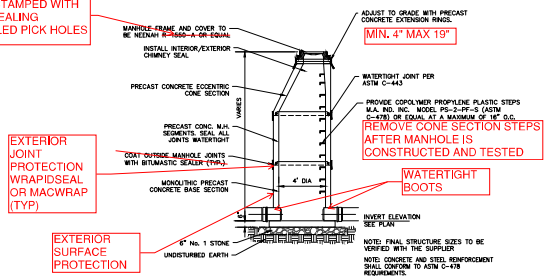
JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 10%, AND 50 FEET ON GRADES EXCEEDING 10%.

NOTE: SEE SPECIFICATIONS FOR MATTING TYPE



CHANNEL EROSION MAT DETAIL
NOT TO SCALE

VALVE BOX DETAIL



PUBLIC SANITARY MANHOLE W/
CONE SECTION DETAIL
NO SCALE

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS
FOX CITIES
MADISON
MILWAUKEE
WAUSAU
www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

WISCONSIN

SOMERS

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE	APR. 26, 2024
PROJECT MANAGER:	N. LAURENT
DESIGNER:	R. LINDSTROM
DRAWN BY:	EXCEL ENGINEERING
EXPEDITOR:	
SUPERVISOR:	
PRELIMINARY NO:	P22188
CONTRACT NO:	
DATE:	APR. 26, 2024
SHEET:	C4.6

DETAILS
EXCEL JOB # 2266000

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS, WISCONSIN

LEGEND

- 000.00 PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)
- 000.00 EG EXISTING GRADE SPOT ELEVATIONS
- 000.00 BG / 000.00 FG PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG-FINISHED SURFACE GRADE AT BACK OF WALL FG-FINISHED SURFACE GRADE AT FRONT OF WALL
- 000.00 TC / 000.00 FL PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
- 000.00 TW / 000.00 BW PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
- EXISTING WATER VALVE IN BOX
- PROPOSED WATER VALVE IN BOX
- EXISTING WATER VALVE IN MANHOLE
- EXISTING WATER SERVICE VALVE
- EXISTING TELEPHONE MANHOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM CATCH BASIN – ST CB
- PROPOSED STORM FIELD INLET – ST FI
- EXISTING SQUARE CATCH BASIN
- EXISTING STORM CURB INLET
- PROPOSED STORM CURB INLET – ST CI
- EXISTING UTILITY POLE
- EXISTING UTILITY POLE WITH GUY WIRE
- EXISTING STREET LIGHT
- EXISTING TELEPHONE PEDESTAL
- EXISTING ELECTRIC PEDESTAL
- EXISTING ELECTRIC BOX
- EXISTING CABLE TV PEDESTAL
- PROPOSED DRAINAGE FLOW
- 1-1/4" REBAR SET WEIGHING 4.30 LB/FT.
- 3/4" REBAR SET WEIGHING 1.50 LB/FT.
- 1-1/4" REBAR FOUND
- 3/4" REBAR FOUND
- 2" IRON PIPE FOUND
- 1" IRON PIPE FOUND
- EXISTING FLOOD LIGHT
- SECTION CORNER
- PROPOSED APRON END SECTION
- EXISTING MARSH AREA
- EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
- EROSION MATTING
- IP PROPOSED INLET PROTECTION
- EXISTING CONIFEROUS TREE
- EXISTING SHRUB
- EXISTING STUMP
- SOIL BORING
- EXISTING WELL
- PROPOSED WELL
- PROPOSED LIGHT POLE
- EXISTING LIGHT POLE
- PROPOSED SIGN
- EXISTING SIGN
- CENTER LINE
- EXISTING HANDICAP PARKING STALL
- PROPOSED HANDICAP PARKING STALL
- EXISTING GAS VALVE
- EXISTING WOODED AREA
- EXISTING HEDGE
- EXISTING CHAINLINK FENCE
- EXISTING WOOD FENCE
- EXISTING BARBED WIRE FENCE
- PROPOSED PROPERTY LINE
- EXISTING GUARD RAIL
- ST — EXISTING STORM SEWER AND MANHOLE
- ST — PROPOSED STORM SEWER AND MANHOLE – ST MH
- SA — EXISTING SANITARY SEWER AND MANHOLE
- SA — PROPOSED SANITARY SEWER AND MANHOLE – SAN MH
- W — EXISTING WATER LINE AND HYDRANT
- W — PROPOSED WATER LINE AND HYDRANT
- OU — EXISTING OVERHEAD UTILITY LINE
- FO — EXISTING UNDERGROUND FIBER OPTIC LINE
- E — EXISTING UNDERGROUND ELECTRIC CABLE
- T — EXISTING UNDERGROUND TELEPHONE CABLE
- G — EXISTING UNDERGROUND GAS LINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- GRADING/SEEDING LIMITS
- RIGHT-OF-WAY LINE
- INTERIOR PROPERTY LINE
- RAILROAD TRACKS
- 800 — EXISTING GROUND CONTOUR
- 800 — PROPOSED GROUND CONTOUR

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

CONSTRUCTION STAKING SERVICES

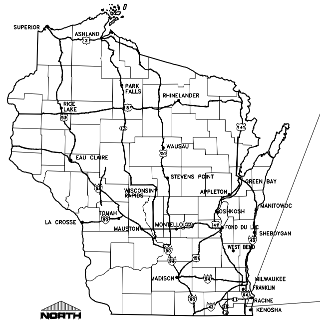
CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

GENERAL PROJECT NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS. ALL WORK IN THE ROW SHALL CONFORM TO KENOSHA COUNTY AND DOT STANDARDS & SPECIFICATIONS.
2. ANY PERSON ERECTING, MOVING, ENLARGING OR RECONSTRUCTING A STRUCTURE, WHICH, UNDER THIS ORDINANCE, REQUIRES A ZONING PERMIT SHALL UPON COMPLETION OF THE CONSTRUCTION OF FOOTINGS, CONCRETE SLAB OR OTHER FOUNDATIONS, SUBMIT TO THE DEPARTMENT OF PLANNING AND DEVELOPMENT A SURVEY PREPARED BY A REGISTERED LAND SURVEYOR SHOWING THE LOCATIONS, BOUNDARIES, DIMENSIONS, ELEVATIONS AND SIZE OF THE FOLLOWING: THE BOUNDARIES OF THE LOT, ALL EXISTING STRUCTURES (INCLUDING FOUNDATIONS) AND THEIR RELATIONSHIP TO THE LOT LINES. THE VILLAGE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL COMPARE THE LOCATION OF ALL NEW OR EXTENDED FOUNDATIONS WITH THE LOCATION OF ALL PROPOSED CONSTRUCTION ACTIVITY REPORTED ON THE PERMIT APPLICATION. NO FURTHER CONSTRUCTION MAY COMMENCE UNLESS THE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL FIND THAT THE FOUNDATION LOCATION IS CONSISTENT WITH THE PERMIT AS ISSUED AND SHALL SO CERTIFY. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION SHALL BE GROUNDS FOR THE ISSUANCE OF A CITATION PURSUANT TO SECTION ZN 6.03(3) OF THIS ORDINANCE, AND ATTENDANT PENALTIES.
3. CONTRACTOR SHALL OBTAIN AND FOLLOW THE VILLAGE OF SOMERS DEVELOPMENT STANDARDS DATED APRIL 3,2018 AND STANDARD MATERIAL SPECIFICATION CHECKLIST DATED JULY 2023 FOR ALL CONSTRUCTION REQUIREMENTS. IF DISCREPANCIES ARE NOTICED, CONTRACTOR SHALL CONFORM TO VILLAGE OF SOMERS REQUIREMENTS.

CIVIL SHEET INDEX

SHEET	SHEET TITLE
C0.1	CIVIL COVER AND SPECIFICATION SHEET
C0.2	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C1.0	EXISTING SITE AND DEMOLITION PLAN
C1.1	SITE PLAN
C1.2	GRADING AND EROSION CONTROL PLAN
C1.3	UTILITY PLAN
C1.4	LANDSCAPE AND RESTORATION PLAN
C2.0	DETAILS
C2.1	DETAILS
C3.1	SITE PHOTOMETRIC PLAN & DETAILS



LOCATION MAP

PROJECT LOCATION MAP

PLAN SPECIFICATIONS

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT.
   2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   5. UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY: TBD.
H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (5 LT 58-28S)	1-1/2" SURFACE COURSE (5 LT 58-28S)
(WISDOT 455.2.5 TACK COAT (STAGED PAVING)	WISDOT 455.2.5 TACK COAT (STAGED PAVING)
2" BINDER COURSE (4 LT 58-28S)	2-1/2" BINDER COURSE (4 LT 58-28S)
10" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE

B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
D. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. DUMPSTER PAD CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1). TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1). CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE-STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45.
M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.
N. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 30 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
   TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
B. SEEDED LAWNS:
   1. PERMANENT LAWN AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS./1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS./1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.). STRAW AND MULCH SHALL BE LAID AT 100LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   2. ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS./1000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   3. ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 1.9 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
C. SEEDED LAWN MAINTENANCE: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"X5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
D. EROSION MATTING:
   1. CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER OUTSIDE OF STORMWATER CONVEYANCE SWALES. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
   2. CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
E. RIP RAP: ALL RIP RAP ASSOCIATED WITH STORMWATER MANAGEMENT AND STORMWATER CONVEYANCE, AS DELINEATED ON THE PLANS, SHALL BE CONSTRUCTED WITH THE TOP OF RIP RAP MATCHING THE PROPOSED ADJACENT GRADE ELEVATIONS. PLACEMENT OF RIP RAP ABOVE THE PROPOSED ADJACENT GRADE ELEVATIONS IS NOT ACCEPTABLE. ALL RIP RAP SHALL BE PLACED ON TYPE HR FILTER FABRIC PER SECTION 645 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURAL CONSTRUCTION.
F. TREES AND SHRUBS: FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, AND HEALTHY LOOKING STOCK. STOCK SHOULD ALSO BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIE TYPE, SIZE, AND LOCATION.
G. TREE AND SHRUB INSTALLATION: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMP TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY. PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
H. TREE AND SHRUB MAINTENANCE/WARRANTY: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
I. MINERAL MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
J. PLASTIC EDGING: INSTALL VALLEY VIEW INDUSTRIES BLACK DIAMOND LAWN EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE 5.5" TALL WITH METAL STAKES INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
B. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL.
C. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY SERVICE AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 6" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (Z-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS REQUIREMENTS.
D. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
E. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 8' HORIZONTALLY FROM FOUNDATION WALLS.
F. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
G. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
H. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (~~10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE~~). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
I. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER, SANITARY AND STORM SEWER.
J. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

10 GAUGE COPPER

Table A: Allowable Pipe Material Schedule

Utility	Material	Pipe Code	Fitting Code	Joint Code
Combined Domestic/Fire Service	C900 PVC	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Sanitary Sewer	SDR 26 PVC	ASTM F-679 PS115	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Storm Sewer	HDPE	ASTM F2648	ASTM F2306 Saddle Gasket	Joint: ASTM F2648 Bell & Spigot Elastomeric Seal: ASTM F477

CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
	2. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF DISCREPANCIES.
	3. CONTRACTOR TO MAKE SURE THE REGIONAL STORMWATER POND IS IN PLACE BEFORE CONSTRUCTION CAN BEGIN.
	4. PLACE ALL SILT FENCE AND INLET PROTECTION.
	5. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS AS NEEDED.
	6. CONSTRUCT PERMANENT STORMWATER CONVEYANCE SYSTEMS.
	7. CONSTRUCT ANY TEMPORARY STORMWATER CONVEYANCE SYSTEMS AS NEEDED.
	8. STABILIZE ALL TEMPORARY AND PERMANENT EROSION CONTROL AND STORMWATER CONVEYANCE SYSTEMS BEFORE TOPSOIL CAN BE STRIPPED.
2. CONSTRUCTION ACTION	1. CLEAR AND GRUB TREES AND BRUSH AS REQUIRED.
	2. STRIP AND RELOCATE TOPSOIL TO THE DESIGNATED TOPSOIL STOCKPILE. LOCATION BY OWNER. FINAL LOCATION BY CONTRACTOR. PROVIDE PERIMETER SILT FENCE UNTIL STABILIZED.
	3. BEGIN MASS EARTH WORK FOR THE BUILDING PAD AND PAVEMENT AREAS.
	4. CONSTRUCT ANY REMAINING STORMWATER CONVEYANCE SYSTEMS, AND INSTALL ALL OTHER UTILITIES ON SITE.
	5. DIG AND POUR ALL BUILDING FOOTINGS.
	6. PLACE GRAVEL FOR ALL PROPOSED PAVEMENT AREAS, INCLUDING FIRE LANES.
	7. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PROPOSED PAVEMENT AREAS.
	8. CONSTRUCT BUILDING.
	9. PAVE DRIVEWAYS AND PARKING AREAS.
	10. TOPSOIL, SEED, AND MULCH ALL OTHER DISTURBED AREAS. PLACE EROSION MATTING AND RIP RAP.
3. POST CONSTRUCTION ACTION	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.
	2. SEE THE POST CONSTRUCTION MAINTENANCE PLAN FOR PERMANENT STORMWATER MANAGEMENT SYSTEMS.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED) 1-800 542-2289
WISCONSIN STATUTE 182.0175 (1974) REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

CONTACTS

OWNER
GOLDEN OIL LLC
1840 BELOIT AVE
JANESVILLE, WI 53546
CONTACT: PAUL BHARDWAJ
P: (262) 854-5072 EXT 221
F: (262) 854-5036
paul@goldenoilcompany.com

CIVIL
EXCEL ENGINEERING
100 CAMELOT DRIVE
FOND DU LAC, WISCONSIN 54935
CONTACT: ERIC DRAZKOWSKI, P.E.
P: (920) 926-9800
F: (920) 926-9801
eric.drazkowski@excelengineer.com

CIVIL COVER AND SPECIFICATION SHEET

EXCEL
Always a Better Plan

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL
WISCONSIN ERIC DRAZKOWSKI E-40127-006 FOND DU LAC, WISCONSIN PROFESSIONAL ENGINEER

PRELIMINARY DATES
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C0.1

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

DOWNSPOUT NOTE:

DS = DENOTES DOWNSPOUT TY
GRADE LOCATIONS. PROVIDE SPLASH BLOCK
ALL DS TO GRADE LOCATIONS. SEE ARCH
FOR FINAL LOCATIONS.

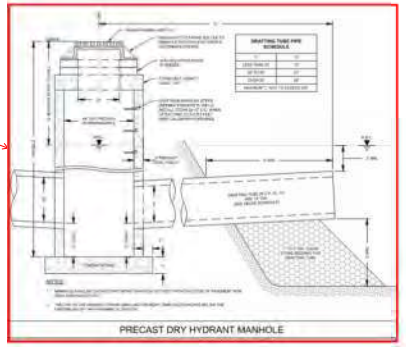
CLEANOUT NOTE:

CO = DENOTES LOCATIONS WH
CONTRACTOR SHALL INSTALL CLEANOUTS,
C0.1 FOR SPECIFICATION.

REVISE UTILITY CONNECTION LOCATIONS PER SOMERS GATEWAY CENTER REVIEW

DRY HYDRANT AND DETAIL.

ADD "NO PARKING" STALLS FOR FIRE DEPARTMENT ACCESS.



MATCHLINE

MATCHLINE

EXCEL
Always a Better Plan
150 Dansal Drive
Fond du Lac, WI 54935
920-906-9800

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

PRELIMINARY DATES
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C1.3

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL UTILITY PLAN

VILLAGE OF SOMERS
Department of Planning & Development

LAND DIVISION APPLICATION

In order for applications to be processed, all information, drawings, application signatures, and fees required shall be submitted at time of application.

Please check the appropriate box below for the type of application being submitted:

- [x] Certified Survey Map
- [ ] Subdivision Preliminary Plat
- [ ] Subdivision Final Plat
- [ ] Condominium Plat

Applicant is: [x] Property Owner [ ] Subdivider [ ] Other _____

Applicant Name: Somers Gateway Center LLC - Paul Bhardwaj Date 04/26/24

Mailing Address: 1170 22nd Ave, Kenosha, WI 53140 Phone # 262-425-1675

_____ Phone # _____

Tax Parcel Number(s): 82-4-222-073-0301

_____ Acreage of Project: 25

Location of Property (including legal description):

NE Corner of 12th Street (Somers Rd) and 120th Ave

See attached legal description.

Subdivision/Development Name (if applicable): NA

Existing Zoning: A-4 Proposed Zoning: Part A-4, part B-3 w/ PUD

Village Land Use Plan District Designation(s) (if applicable):

Present Business/Industrial Park

Proposed Business/Industrial Park

Present Use(s) of Property: Vacant / Ag Land

Proposed Use(s) of Property: Fueling station w/ convenience store, multiple restaurants w/ drive-thrus (Lot 1) Hotel (Lot 4), Future Commercial (Lot 3), Future Commercial (Lot 2)

The subdivision abuts or adjoins a state trunk highway.....Yes ( ) No (✔)

The subdivision will be served by public sewer .....Yes (✔) No ( )

The subdivision abuts a county trunk highway .....Yes (✔) No ( )

The subdivision contains shoreland/floodplain areas .....Yes (✔) No ( )

The subdivision lies within the extra-territorial plat (ETP) authority area of a nearby Village or City .....Yes ( ) No (✔)

*Applicant is responsible for submitting to the ETP authority any fees and documentation needed to obtain a recommendation.

REQUIRED SIGNATURE(S) FOR ALL APPLICATIONS:

Property Owner's Signature — Date 4/22/24

Property Owner's Signature — Date

REQUIRED APPLICABLE SIGNATURES:

Applicant's Signature — Date

Developer's Signature — Date

CSM Legal Description

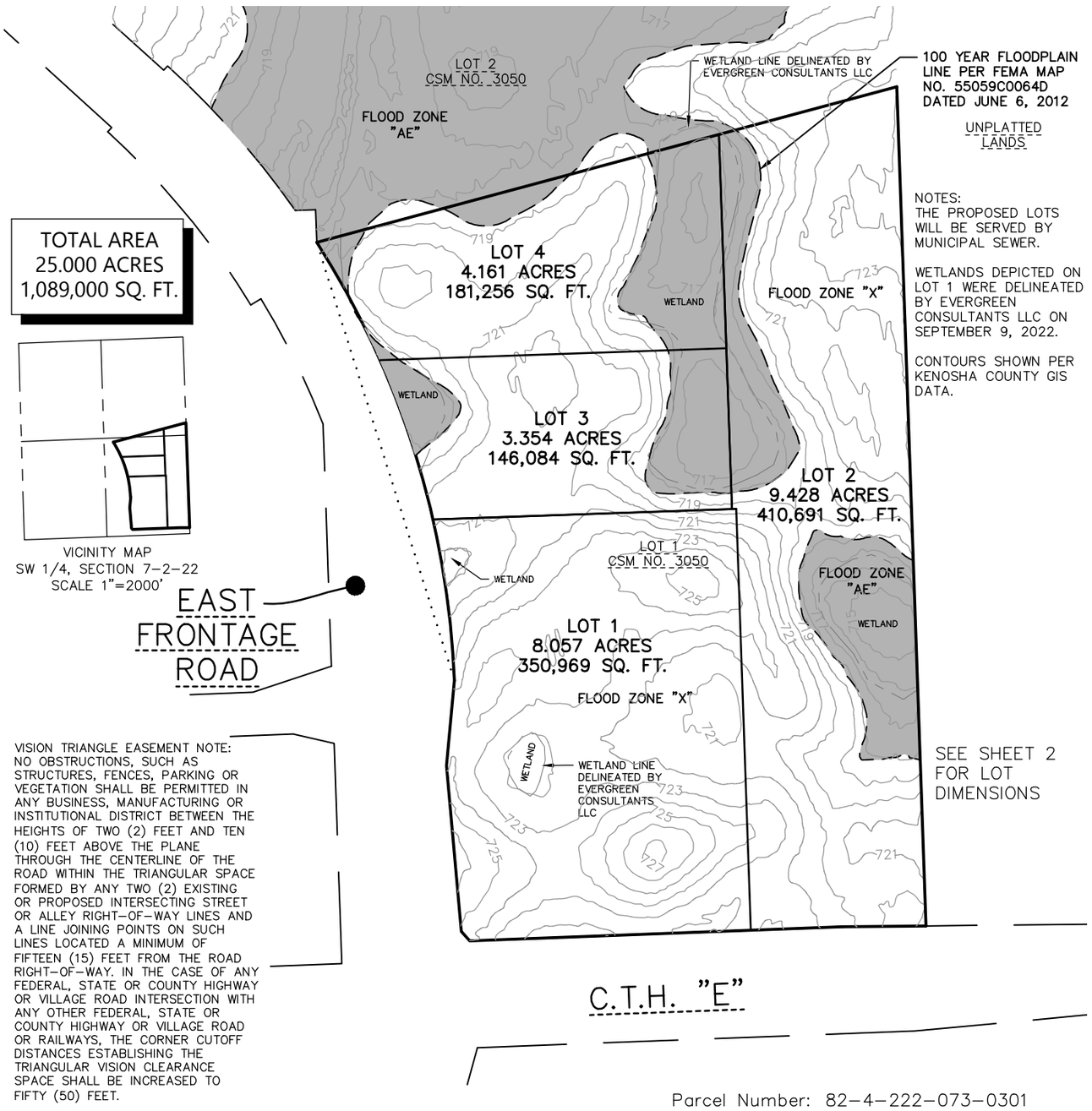
Lot 1 of Certified Survey Map No. 3050, recorded in the Kenosha County Register of Deeds Office as Document No. 1948190, being part of the Northeast 1/4 and Southeast 1/4 of the Southwest 1/4 of Section 7, Township 2 North, Range 22 East, Village of Somers, Kenosha County, Wisconsin.

CERTIFIED SURVEY MAP NO. _____

FOR

SOMERS GATEWAY CENTER LLC

LOT 1, CSM NO. 3050, BEING PART OF THE NORTHEAST 1/4 & SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, SECTION 7, TOWNSHIP 2 NORTH, RANGE 22 EAST, VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN.



NOTES:
THE PROPOSED LOTS WILL BE SERVED BY MUNICIPAL SEWER.

WETLANDS DEPICTED ON LOT 1 WERE DELINEATED BY EVERGREEN CONSULTANTS LLC ON SEPTEMBER 9, 2022.

CONTOURS SHOWN PER KENOSHA COUNTY GIS DATA.

VISION TRIANGLE EASEMENT NOTE:
NO OBSTRUCTIONS, SUCH AS STRUCTURES, FENCES, PARKING OR VEGETATION SHALL BE PERMITTED IN ANY BUSINESS, MANUFACTURING OR INSTITUTIONAL DISTRICT BETWEEN THE HEIGHTS OF TWO (2) FEET AND TEN (10) FEET ABOVE THE PLANE THROUGH THE CENTERLINE OF THE ROAD WITHIN THE TRIANGULAR SPACE FORMED BY ANY TWO (2) EXISTING OR PROPOSED INTERSECTING STREET OR ALLEY RIGHT-OF-WAY LINES AND A LINE JOINING POINTS ON SUCH LINES LOCATED A MINIMUM OF FIFTEEN (15) FEET FROM THE ROAD RIGHT-OF-WAY. IN THE CASE OF ANY FEDERAL, STATE OR COUNTY HIGHWAY OR VILLAGE ROAD INTERSECTION WITH ANY OTHER FEDERAL, STATE OR COUNTY HIGHWAY OR VILLAGE ROAD OR RAILWAYS, THE CORNER CUTOFF DISTANCES ESTABLISHING THE TRIANGULAR VISION CLEARANCE SPACE SHALL BE INCREASED TO FIFTY (50) FEET.

Parcel Number: 82-4-222-073-0301

MAP DATE: APR. 26, 2024

LEGEND

- ● – 3/4" x 18" REBAR SET WEIGHING 1.50 LBS/FT.
- ▲ – 1" IRON PIPE FOUND
- ○ – 3/4" REBAR FOUND
- ⊕ – SECTION CORNER MONUMENT

NORTH POINT REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD83). THE EAST LINE OF THE SOUTHWEST 1/4 OF SECTION 7 HAS A BEARING OF NORTH 01°-59'-09" WEST.

1"= 250'

250' 0 250' 500'

SCALE FEET

OWNER/DEVELOPER/SUBDIVIDER::
SOMERS GATEWAY CENTER LLC
1170 22ND AVENUE, 2ND FLOOR
KENOSHA, WI 53140

SHEET 1 OF 4 SHEETS

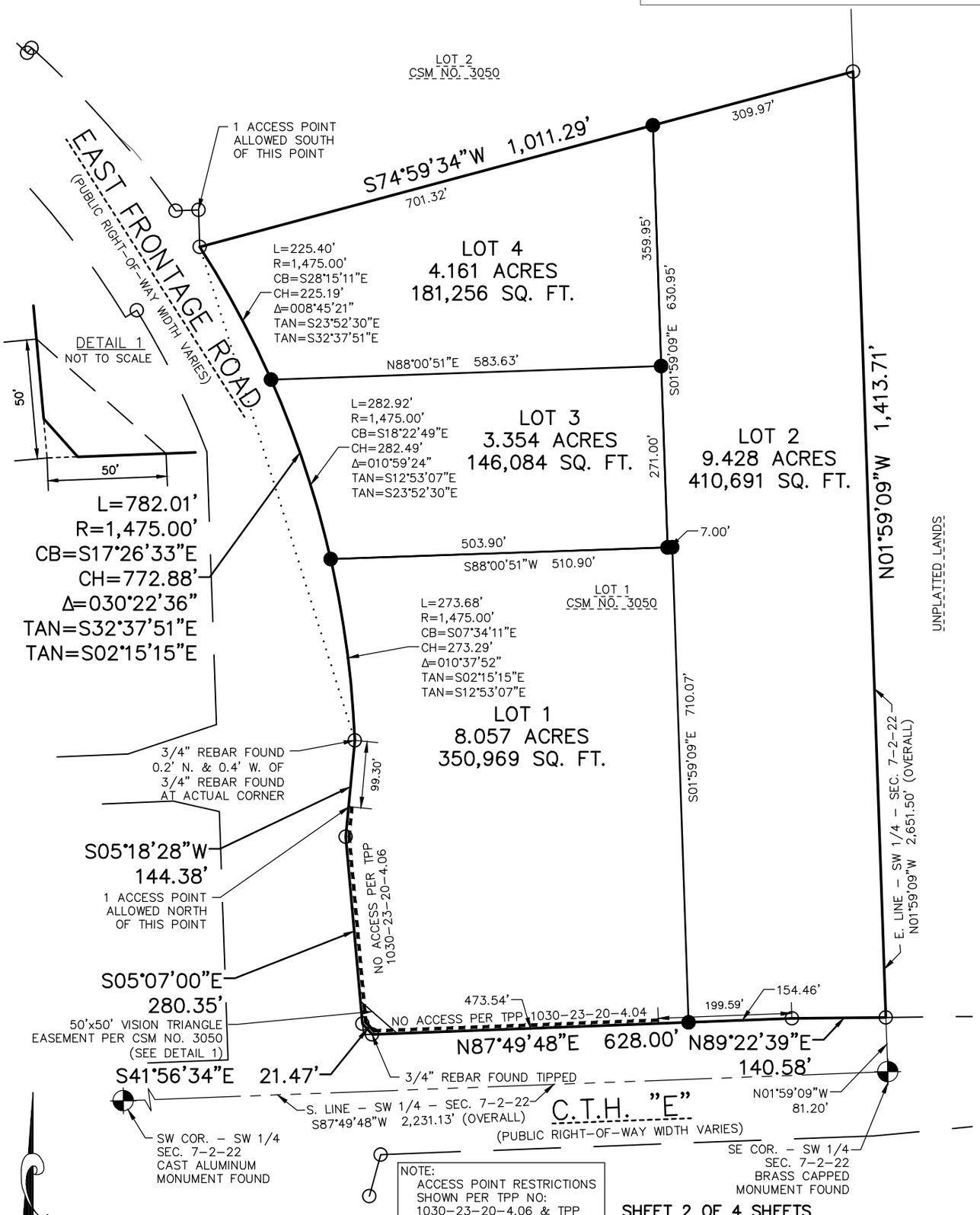
EXCEL
ARCHITECTS • ENGINEERS • SURVEYORS
Always a Better Plan
100 Camelot Drive
Fond Du Lac, WI 54935
Phone: (920) 926-9800
www.EXCELENGINEER.com
JOB NO. 2266000

CERTIFIED SURVEY MAP NO. _____

FOR

SOMERS GATEWAY CENTER LLC

LOT 1, CSM NO. 3050, BEING PART OF THE NORTHEAST 1/4 & SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, SECTION 7, TOWNSHIP 2 NORTH, RANGE 22 EAST, VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN.



SHEET 2 OF 4 SHEETS

EXCEL
ARCHITECTS • ENGINEERS • SURVEYORS
Always a Better Plan
100 Camelot Drive
Fond Du Lac, WI 54935
Phone: (920) 926-9800
www.EXCELENGINEER.com
JOB NO. 2266000

CERTIFIED SURVEY MAP NO. _____

LOT 1, CSM NO. 3050, BEING PART OF THE NORTHEAST 1/4
& SOUTHEAST 1/4 OF THE SOUTHWEST 1/4,
SECTION 7, TOWNSHIP 2 NORTH, RANGE 22 EAST,
VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

I, Ryan Wilgreen, Professional Land Surveyor, hereby certify:

That I have surveyed, divided and mapped a parcel of land described below.

That I have made such Certified Survey under the direction of Somers Gateway Center LLC bounded and described as follows:

Lot 1 of Certified Survey Map No. 3050, recorded in the Kenosha County Register of Deeds Office as Document No. 1948190, being part of the Northeast 1/4 and Southeast 1/4 of the Southwest 1/4 of Section 7, Township 2 North, Range 22 East, Village of Somers, Kenosha County, Wisconsin.

That such is a correct representation of all the exterior boundaries of the land surveyed and the land division thereof made.

That I have fully complied with the provisions of Section 236.34 of the Wisconsin Statutes and the Subdivision Ordinance of the Village of Somers in surveying, dividing and mapping the same.

_____
Ryan Wilgreen, P.L.S. No. S-2647
ryan.w@excelengineer.com
Excel Engineering, Inc.
Fond du Lac, Wisconsin 54935
Project Number: 2266000

VILLAGE BOARD APPROVAL

Approved by the Village Board of the Village of Somers on this _____ day of _____, 20____.

_____ _____
George Stoner, Village President Date

_____ _____
Brandi Baker, Village Clerk-Treasurer Date

SHEET 3 OF 4 SHEETS

CERTIFIED SURVEY MAP NO. _____

LOT 1, CSM NO. 3050, BEING PART OF THE NORTHEAST 1/4
& SOUTHEAST 1/4 OF THE SOUTHWEST 1/4,
SECTION 7, TOWNSHIP 2 NORTH, RANGE 22 EAST,
VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN.

OWNER'S CERTIFICATE

Somers Gateway Center LLC, a limited liability company duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said limited liability company caused the land described on this map to be surveyed, divided and mapped as represented on this map.

Somers Gateway Center LLC does further certify that this map is required to be submitted to the following for approval or objection:

1. Village of Somers

WITNESS the hand and seal of said owner this _____ day of _____, 20__.

Somers Gateway Center LLC

_____

_____, _____
(Print) (Title)

STATE OF _____)

_____COUNTY)SS

Personally, came before me this _____ day of _____, 20___, the above named

_____ to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____

Notary Public, _____ County, ____

My Commission Expires:_____

SHEET 4 OF 4 SHEETS

VILLAGE OF SOMERS
Department of Planning & Development

VILLAGE OF SOMERS REZONING PROCEDURES

☐ **1.** Contact the Kenosha County Department of Planning & Development and check with staff to determine if your proposed zoning change meets the requirements of the Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035, Village of Somers General Zoning and Shoreland/Floodplain Zoning Ordinance and the Village of Somers Land Division and Platting Control Ordinance. Note: If the proposed rezoning is part of a proposed land division see the Certified Survey Map Information and Procedures.

☐ **2.** Contact the Kenosha County Department of Planning & Development and schedule a pre-conference meeting, which is required for <u>all</u> rezoning requests.

Meeting Date: 7/13/23

☐ **3.** Contact the Village of Somers to determine if your rezoning petition requires concept review by the Village Plan Commission. If so, contact the Village of Somers clerk to schedule a concept meeting with the Village Plan Commission.

Meeting Date: _____

☐ **4.** Complete and submit to the Kenosha County Department of Planning & Development the Village of Somers Rezoning Application by the filing deadline.

Filing Deadline: 4/26/24

☐ **5.** Upon submission you will be given two copies of the date-stamped application. Submit 10 copies of the date-stamped application to the Village of Somers clerk for placement on the agendas of the Village of Somers Plan Commission and the Village of Somers Board and keep one for your records.

☐ **7.** Attend the Village Plan Commission and the Village Board meetings. **NOTE:** You must attend or the Village will not be able to act on your request. At these meetings you will be asked to brief the committee on your request.

Village Plan Commission meeting date (tentative): 6/10/24

Village Board meeting date (tentative): 6/25/24

☐ **8.** Village clerk will provide written notice of final action to property owner/applicant.

IMPORTANT TELEPHONE NUMBERS

Kenosha County Center
Department of Public Works & Development Services
19600 - 75th Street, Suite 185-3
Bristol, Wisconsin 53104-9772

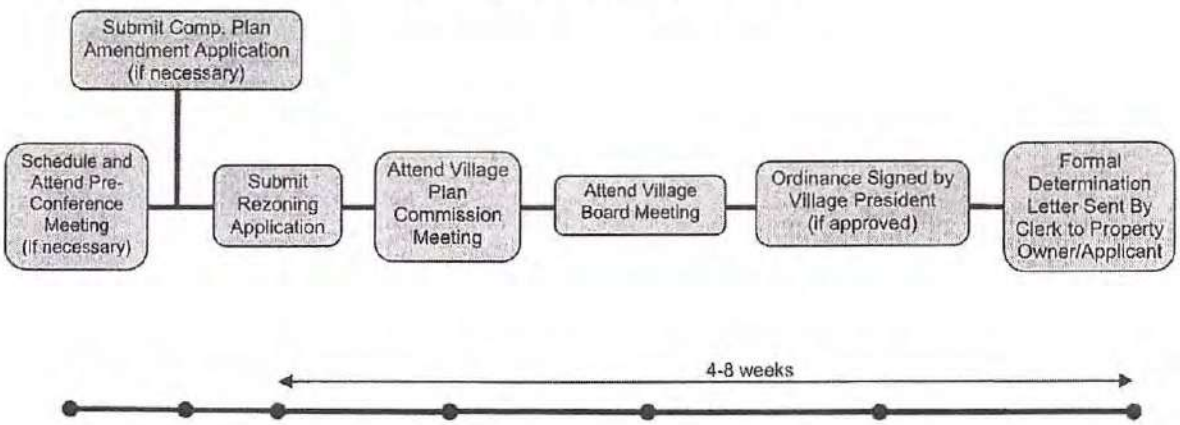
Division of Planning & Development (including Sanitation & Land Conservation) **857-1895**
Facsimile # 857-1920

Public Works Division of Highways 857-1870

Administration Building
Division of Land Information 653-2622

Village of Somers 859-2822
Wisconsin Department of Natural Resources - Sturtevant Office 884-2300
Wisconsin Department of Transportation - Waukesha Office 548-8722

Rezoning Procedure Timeline



For Reference Purposes

VILLAGE OF SOMERS
Department of Planning and Development

REZONING APPLICATION

(a) Property Owner's Name:

Somers Gateway Center LLC

Print Name: Paul Bhardwaj Signature:

Mailing Address: 1170 22nd Ave

City: Kenosha State: WI Zip: 53140

Phone Number: 262-425-1675 E-mail (optional): Paul@goldenoilcompany.com

Note: Unless the property owner's signature can be obtained in the above space, a letter of agent status **signed** by the legal property owner **must** be submitted if you are a tenant, leaseholder, or authorized agent representing the legal owner, allowing you to act on their behalf.

(b) Agent's Name (if applicable):

Print Name: Devin Winter Signature:

Business Name: Excel Engineering, Inc.

Mailing Address: 100 Camelot Dr

City: Fond du Lac State: WI Zip: 54935

Phone Number: 920-926-9800 E-mail (optional): devin.winter@excelengiener.com

(c) Tax key number(s) of property to be rezoned:

82-4-222-073-0301 - CSM proposed to divide property into (4) lots.
Lots 1 & 4 of proposed CSM to be rezoned to B-3 with PUD overlay.
Lots 2 & 3 of proposed CSM to remain A-4.

Property Address of property to be rezoned:

NE Corner of 12th Street (Somers Rd) and 120th Ave

(d) Proposed use (a statement of the type, extent, area, etc. of any development project):

The proposed redevelopment will include an automobile fueling station, first floor convenience store with restrooms, multiple quick-serve restaurants with a small outdoor patio for dining and two (2) drive thrus (Lot 1). Hotel is proposed on Lot 4.

(e) Check the box next to any and all of the **existing** zoning district classifications present on the subject property:

☐ A-1 Agricultural Preservation District	☐ B-1 Neighborhood Business District
☐ A-2 General Agricultural District	☐ B-2 Community Business District
☐ A-3 Agricultural Related Manufacturing, Warehousing and Marketing District	☐ B-3 Highway Business District
☒ A-4 Agricultural Land Holding District	☐ B-4 Planned Business District
☐ AE-1 Agricultural Equestrian Cluster Single-Family District	☐ B-5 Wholesale Trade and Warehousing District
☐ R-1 Rural Residential District	☐ BP-1 Business Park District
☐ R-2 Suburban Single-Family Residential District	☐ B-94 Interstate Highway 94 Special Use Business District
☐ R-3 Urban Single-Family Residential District	☐ M-1 Limited Manufacturing District
☐ R-4 Urban Single-Family Residential District	☐ M-2 Heavy Manufacturing District
☐ R-4.5 Urban Single-Family Residential District	☐ M-3 Mineral Extraction District
☐ R-5 Urban Single-Family Residential District	☐ M-4 Sanitary Landfill and Hazardous Waste Disposal District
☐ R-6 Urban Single-Family Residential District	☐ I-1 Institutional District
☐ R-7 Suburban Two-Family and Three-Family Residential District	☐ PR-1 Park-Recreational District
☐ R-8 Urban Two-Family Residential District	☐ C-1 Lowland Resource Conservancy District
☐ R-9 Multiple-Family Residential District	☐ C-2 Upland Resource Conservancy District
☐ R-10 Multiple-Family Residential District	☐ FPO Floodplain Overlay District
☐ R-11 Multiple-Family Residential District	☐ PUD Planned Unit Development Overlay District
☐ R-12 Mobile Home/Manufactured Home Park-Subdivision District	☐ AO Airport Overlay District
	☐ RC Rural Cluster Development Overlay District

(f) Check the box next to any and all of the **proposed** zoning district classifications proposed for the subject property:

☐ A-1 Agricultural Preservation District	☐ B-1 Neighborhood Business District
☐ A-2 General Agricultural District	☐ B-2 Community Business District
☐ A-3 Agricultural Related Manufacturing, Warehousing and Marketing District	☒ B-3 Highway Business District
☐ A-4 Agricultural Land Holding District	☐ B-4 Planned Business District
☐ AE-1 Agricultural Equestrian Cluster Single-Family District	☐ B-5 Wholesale Trade and Warehousing District
☐ R-1 Rural Residential District	☐ BP-1 Business Park District
☐ R-2 Suburban Single-Family Residential District	☐ B-94 Interstate Highway 94 Special Use Business District
☐ R-3 Urban Single-Family Residential District	☐ M-1 Limited Manufacturing District
☐ R-4 Urban Single-Family Residential District	☐ M-2 Heavy Manufacturing District
☐ R-4.5 Urban Single-Family Residential District	☐ M-3 Mineral Extraction District
☐ R-5 Urban Single-Family Residential District	☐ M-4 Sanitary Landfill and Hazardous Waste Disposal District
☐ R-6 Urban Single-Family Residential District	☐ I-1 Institutional District
☐ R-7 Suburban Two-Family and Three-Family Residential District	☐ PR-1 Park-Recreational District
☐ R-8 Urban Two-Family Residential District	☐ C-1 Lowland Resource Conservancy District
☐ R-9 Multiple-Family Residential District	☐ C-2 Upland Resource Conservancy District
☐ R-10 Multiple-Family Residential District	☐ FPO Floodplain Overlay District
☐ R-11 Multiple-Family Residential District	☒ PUD Planned Unit Development Overlay District
☐ R-12 Mobile Home/Manufactured Home Park-Subdivision District	☐ AO Airport Overlay District
	RC Rural Cluster Development Overlay District

(g) Your request must be consistent with the existing planned land use category as shown on Map 65 of the adopted "Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035".

The existing planned land use category for the subject property is:

☐	Farmland Protection	☐	Governmental and Institutional
☐	General Agricultural and Open Land	☐	Park and Recreational
☐	Rural-Density Residential	☐	Street and Highway Right-of-Way
☐	Agricultural and Rural Density Residential	☐	Other Transportation, Communication, and Utility
☐	Suburban-Density Residential	☐	Extractive
☐	Medium-Density Residential	☐	Landfill
☐	High-Density Residential	☐	Primary Environmental Corridor
☐	Mixed Use	☐	Secondary Environmental Corridor
☐	Commercial	☐	Isolated Natural Resource Area
☐	Office/Professional Services	☐	Other Conservancy Land to be Preserved
☐	Industrial	☐	Nonfarmed Wetland
☒	Business/Industrial Park	☐	Surface Water

(h) Attach a plot plan or survey plat of property to be rezoned (showing location, dimensions, zoning of adjacent properties, existing uses and buildings of adjacent properties, floodways and floodplains)—drawn to scale.

(i) The Village of Somers Department of Planning and Development may ask for additional information.

(j) The name of the County Supervisor of the district wherein the property is located (District Map):

Supervisory District Number: 19 County Board Supervisor: Keith Gray

(k) The fee specified in Section 12.05-8 of this ordinance.

Request for Rezoning Petition (payable to "Kenosha County").....$1,450.00

(For other fees see the Fee Schedule)

Note: Agricultural Use Conversion Charge

The use value assessment system values agricultural land based on the income that would be generated from its rental for agricultural use rather than its fair market value. When a person converts agricultural land to a non-agricultural use (e.g. residential or commercial development), that person may owe a conversion charge. To obtain more information about the use value law or conversion charge, contact the Wisconsin Department of Revenue's Equalization Section at 608-266-2149 or visit http://www.revenue.wi.gov/faqs/slf/useassmt.html.

Note that the act of rezoning property from an agricultural zoning district to a non-agricultural zoning district does not necessarily trigger the agricultural use conversion charge. It is when the use of the property changes from agricultural that the conversion charge is assessed.

Zoning Legal Description

Part of Lot 1 of Certified Survey Map No. 3050, recorded in the Kenosha County Register of Deeds Office as Document No. 1948190, being part of the Northeast 1/4 and Southeast 1/4 of the Southwest 1/4 of Section 7, Township 2 North, Range 22 East, Village of Somers, Kenosha County, Wisconsin being more particularly described as follows:

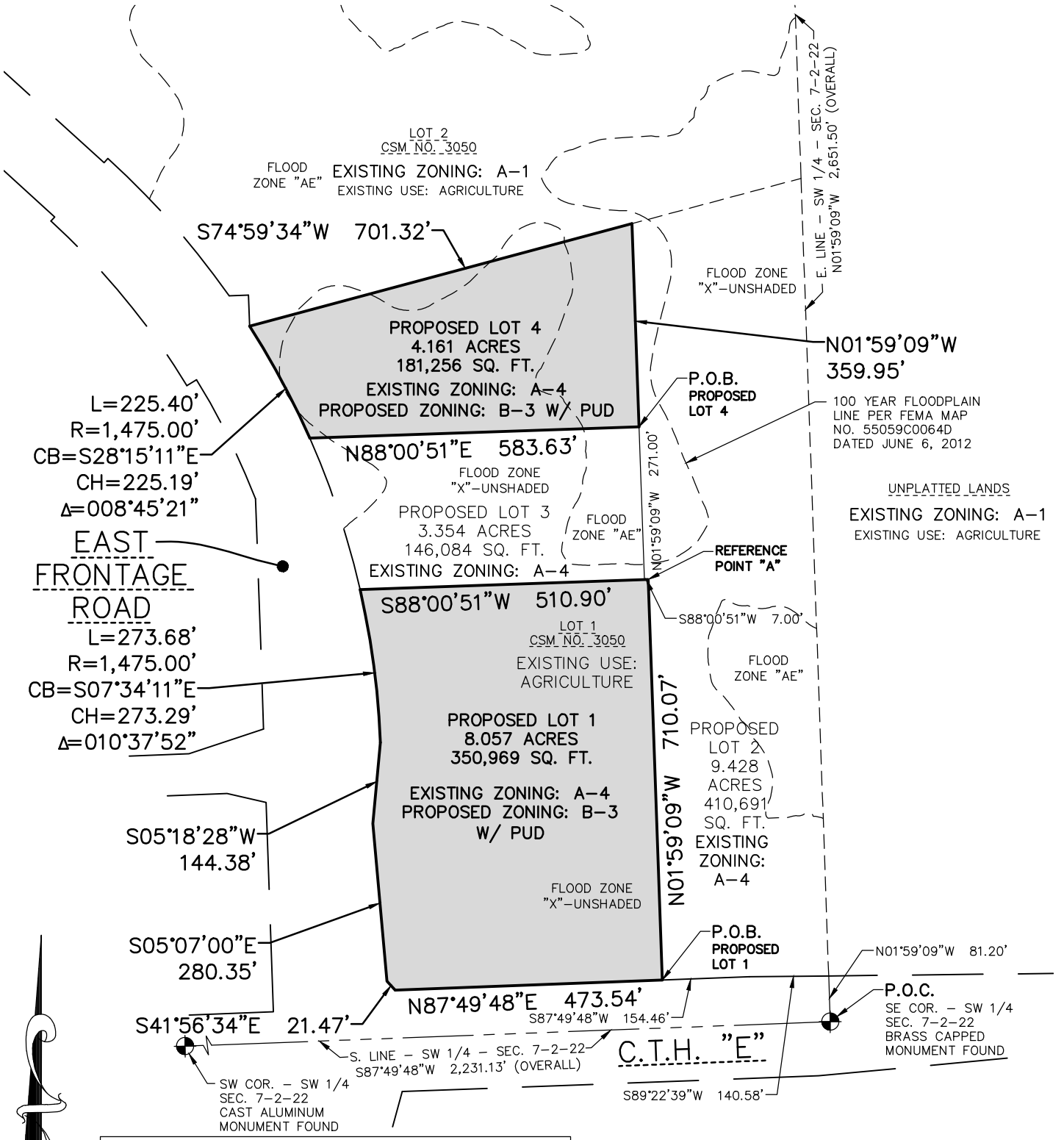
Commencing at Southeast corner of the Southwest 1/4 of said Section 7; thence North 01°-59'-09" West along the East line of said Southwest 1/4, a distance of 81.20 feet to the North right-of-way line of County Trunk Highway "E"; thence South 89°-22'-39" West along said North line, a distance of 140.58 feet; thence South 87°-49'-48" West along said North line, a distance of 154.46 feet to the point of beginning of Proposed Lot 1; thence North 01°-59'-09" West, a distance of 710.07 feet, to a point to be known as Reference Point "A"; thence South 88°-00'-51" West, a distance of 510.90 feet to the Easterly right-of-way line of the East Frontage Road; thence Southeasterly 273.68 feet along said Easterly line on a curve to the right having a radius of 1,475.00 feet, the chord of said curve bears South 07°-34'-11" East, a chord distance of 273.29 feet; thence South 05°-18'-28" West along said Easterly line, a distance of 144.38 feet; thence South 05°-07'-00" East along said Easterly line, a distance of 280.35 feet; thence South 41°-56'-34" East along said Easterly line, a distance of 21.47 feet to the North right-of-way line of County Trunk Highway "E"; thence North 87°-49'-48" East along said North line, a distance of 473.54 feet to the point of beginning.

ALSO

Commencing at said Reference Point "A"; thence South 88°-00'-51" West, a distance of 7.00 feet; thence North 01°-59'-09" West, a distance of 271.00 feet to the point of beginning of Proposed Lot 4; thence continuing North 01°-59'-09" West, a distance of 359.95 feet to the Northerly line of said Lot 1; thence South 74°-59'-34" West along said Northerly line, a distance of 701.32 feet to the Easterly right-of-way line of the East Frontage Road; thence Southeasterly 225.40 feet along said Easterly line on a curve to the right having a radius of 1,475.00 feet, the chord of said curve bears South 28°-15'-11" East, a chord distance of 225.19 feet; thence North 88°-00'-51" East, a distance of 583.63 feet to the point of beginning.

Said lands containing 12.218 acres (532,225 sq. ft.) of land more or less.

ZONING EXHIBIT



ZONING KEY
A-1 – AGRICULTURAL PRESERVATION DISTRICT
A-4 – AGRICULTURAL LAND HOLDING DISTRICT
B-4 – PLANNED BUSINESS DISTRICT
PUD – PLANNED UNIT DEVELOPMENT OVERLAY DISTRICT

NORTH

1"= 250'

250' 0 250' 500'

SCALE FEET

Parcel Number: 82-4-222-073-0301

EXCEL
ARCHITECTS • ENGINEERS • SURVEYORS
Always a Better Plan
100 Camelot Drive
Fond Du Lac, WI 54935
Phone: (920) 926-9800
www.EXCELENGINEER.com
JOB NO. 2266000

April 26, 2024

Rezone Narrative

Project: Golden Oil Marketplace
1170 22nd Ave
Kenosha, WI 53140

Somers Gateway Center, LLC is requesting to rezone portions of the property for the development located at the northeast corner of 120th Ave (E. Frontage Rd) and Somers Rd (CTH E) in the Village of Somers. The existing land is currently agricultural and utilized as farmland. The proposed development is proposing to split the 25 acre parcel into four (4) separate lots via certified survey map (CSM) that is being submitted concurrently. Lots 1 and 4 are proposed to be rezoned from A4 (Agricultural Land Holding) to B3 w/ PUD (Planned Unit Development). The PUD is being requested for deviations from the code as noted below. Lots 2 and 3 will remain A4 until time of development. Lot 1 is proposing to construct an automobile fueling station, convenience store with restrooms, multiple quick-serve restaurants with a small outdoor patio for dining and two (2) drive thrus. Based on the zoning ordinance, a conditional use permit is required for the fueling station and outdoor dining. Lot 4 is proposing a hotel that is permitted within the B3 zoning. All applications are being submitted concurrently for review and approval.

The development is requesting a PUD to allow flexibility of the zoning code for design parameters presented as part of the master development plans. The total area to be included in the PUD is as follows: Lot 1 – 8.057 acres, Lot 4 – 4.161 acres. The estimated cost of the developments on Lot 1 and Lot 4 is roughly $30,000,000. The entire property is owned by Somers Gateway Center, LLC currently and anticipated to remain as such until future development occurs on Lots 2/3.

Departures from the code for the overall development are necessary with the multiple uses, access restrictions, and operational requirements of the development. Departures from the code as requested include:

1. 3.06(3)(g) Driveways
    a. Adequate Access. Adequate access to a public or private roadway shall be provided for each parking space. Driveways for all single-family and two-family residential uses shall be a minimum of 10 feet in width and not exceed 24 feet at the property line. For all other properties, vehicular ingress and egress shall not exceed 35 feet in width at the property line.
        i. Request: The access to 120th Ave is being requested for a minimum width of 45’ at the property line to include a RT, LT w/ thru, and enter drive lanes.
            1. Discussion: Per the Wisconsin Department of Transportation’s Transportation Project Plat No: 1030-23-20-4.04 Amendment No:1, the property is restricted to one (1) access point to on 120th Ave (E. Frontage Rd) and the western 428 ft of the frontage on 12th Street (Somers Rd, CTH E). A full TIA is being completed and submitted for review and approval for the development.

2. 3.07(6)(d) Freestanding Signs
    a. Number: Limited to one per street frontage or drive entrance, provided that no freestanding sign is located closer than a minimum of 300 feet to another freestanding sign on the same property.
        i. Request: Two (2) freestanding signs on 120th Street as presented.
    b. Area: 150 square feet per side of sign, 300 square feet maximum for all sides, except for freestanding signs within an area between Interstate Highway 94 and a distance 50 feet beyond the outermost right-of-way edge of the Frontage Road may be up to 300 square feet per side of sign and 600 square feet maximum for all sides.
        i. Request: Sign sizes as presented
            1. 80' = 502 sf/side
            2. 40' signs = 240 sf/side
    c. Height: 20 feet, except for freestanding signs within an area between Interstate Highway 94 and a distance 50 feet beyond the outermost right-of-way edge of the Frontage Road may be up to 30 feet.
        i. Request: Two (2) 40' freestanding signs and one (1) 80' freestanding sign
3. 3.07(6)(h)(2) Wall Signs – Multi-tenant
    a. Number: one per tenant, plus each tenant may place one wall sign per public entrance or wall/facade which fronts upon a public right-of-way or private drive and contained within the tenant's internal wall space or end cap wall area.
        i. Request: Wall Signage as presented
    b. Area: Limited to 1.5 times the length of the wall on which the sign is to be placed, up to a maximum of 600 square feet.
        i. Request: Wall Signage as presented
4. 3.19(6) Landscaping Required for Building Foundations
    a. In Business, Manufacturing and Institutional Districts: A minimum of one ornamental tree per 20 feet of building foundation. Two shrubs shall equal one ornamental tree.
        i. Request: Landscaping as presented
            1. Discussion: Landscaping is provided as much as possible based on other similar facilities/operations in the area. Hardscape is provided as much as possible to limit areas trash can collect around the facility.
5. 3.19(5) Landscaping Required for Open Yard Areas
    a. In Business, Manufacturing and Institutional Districts: A minimum of one evergreen or deciduous trees per 1,000 square feet of open yard area; two ornamental trees or two shrubs shall equal one evergreen or deciduous tree.
        i. Request: Landscaping as presented
            1. Discussion: Landscaping is provided as much as possible based on other similar facilities/operations in the area. Public utilities and easements are required through the development. Landscaping is not provided within public utility easements due to maintenance issues.
6. 4.04(3)(f) Building Height and Area
    a. No building or parts of a building shall exceed 35 feet in height.
        i. Request: Hotel building height of approximately 56'.
            1. Discussion: As discussed with staff, the hotel use is highly needed in the Village of Somers. Rezoning to B4 with an allowable building height of 60 ft was not recommended by staff.

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS, WISCONSIN

LEGEND

- 100.00 — PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)
- 100.00 EG — EXISTING GRADE SPOT ELEVATIONS
- 100.00 BG / 100.00 FG — PROPOSED SPOT ELEVATIONS (REFERENCE R—WALL DETAIL) BG—FINISHED SURFACE GRADE AT BACK OF WALL FG—FINISHED SURFACE GRADE AT FRONT OF WALL
- 100.00 TC / 100.00 FL — PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
- 100.00 TW / 100.00 BW — PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
- EXISTING WATER VALVE IN BOX
- PROPOSED WATER VALVE IN BOX
- EXISTING WATER VALVE IN MANHOLE
- EXISTING WATER SERVICE VALVE
- EXISTING TELEPHONE MANHOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM CATCH BASIN — ST CB
- PROPOSED STORM FIELD INLET — ST FI
- EXISTING SQUARE CATCH BASIN
- EXISTING STORM CURB INLET
- PROPOSED STORM CURB INLET — ST CI
- EXISTING UTILITY POLE
- EXISTING UTILITY POLE WITH GUY WIRE
- EXISTING STREET LIGHT
- EXISTING TELEPHONE PEDESTAL
- EXISTING ELECTRIC PEDESTAL
- EXISTING ELECTRIC BOX
- EXISTING CABLE TV PEDESTAL
- PROPOSED DRAINAGE FLOW
- 1—1/4" REBAR SET WEIGHING 4.30 LB/FT.
- 3/4" REBAR SET WEIGHING 1.50 LB/FT.
- 1—1/4" REBAR FOUND
- 3/4" REBAR FOUND
- 2" IRON PIPE FOUND
- 1" IRON PIPE FOUND
- EXISTING FLOOD LIGHT
- SECTION CORNER
- PROPOSED APRON END SECTION
- EXISTING MARSH AREA
- EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
- EROSION MATTING
- IP — PROPOSED INLET PROTECTION
- EXISTING CONIFEROUS TREE
- EXISTING SHRUB
- EXISTING STUMP
- SOIL BORING
- EXISTING WELL
- PROPOSED WELL
- PROPOSED LIGHT POLE
- EXISTING LIGHT POLE
- PROPOSED SIGN
- EXISTING SIGN
- CENTER LINE
- EXISTING HANDICAP PARKING STALL
- PROPOSED HANDICAP PARKING STALL
- EXISTING GAS VALVE
- EXISTING WOODED AREA
- EXISTING HEDGE
- EXISTING CHAINLINK FENCE
- EXISTING WOOD FENCE
- EXISTING BARBED WIRE FENCE
- PROPOSED PROPERTY LINE
- EXISTING GUARD RAIL
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED STORM SEWER AND MANHOLE — ST MH
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED SANITARY SEWER AND MANHOLE — SAN MH
- EXISTING WATER LINE AND HYDRANT
- PROPOSED WATER LINE AND HYDRANT
- EXISTING OVERHEAD UTILITY LINE
- EXISTING UNDERGROUND FIBER OPTIC LINE
- EXISTING UNDERGROUND ELECTRIC CABLE
- EXISTING UNDERGROUND TELEPHONE CABLE
- EXISTING UNDERGROUND GAS LINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- GRADING/SEEDING LIMITS
- RIGHT—OF—WAY LINE
- INTERIOR PROPERTY LINE
- RAILROAD TRACKS
- 800 — EXISTING GROUND CONTOUR
- 800 — PROPOSED GROUND CONTOUR

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

CONSTRUCTION STAKING SERVICES

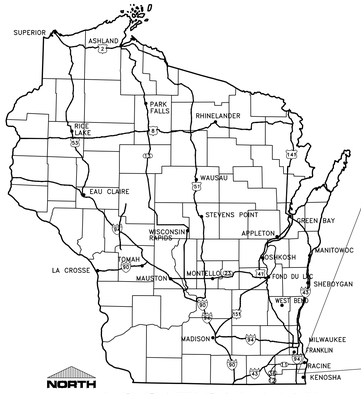
CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

GENERAL PROJECT NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS. ALL WORK IN THE ROW SHALL CONFORM TO KENOSHA COUNTY AND DOT STANDARDS & SPECIFICATIONS.
2. ANY PERSON ERECTING, MOVING, ENLARGING OR RECONSTRUCTING A STRUCTURE, WHICH, UNDER THIS ORDINANCE, REQUIRES A ZONING PERMIT SHALL UPON COMPLETION OF THE CONSTRUCTION OF FOOTINGS, CONCRETE SLAB OR OTHER FOUNDATIONS, SUBMIT TO THE DEPARTMENT OF PLANNING AND DEVELOPMENT A SURVEY PREPARED BY A REGISTERED LAND SURVEYOR SHOWING THE LOCATIONS, BOUNDARIES, DIMENSIONS, ELEVATIONS AND SIZE OF THE FOLLOWING: THE BOUNDARIES OF THE LOT, ALL EXISTING STRUCTURES (INCLUDING FOUNDATIONS) AND THEIR RELATIONSHIP TO THE LOT LINES. THE VILLAGE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL COMPARE THE LOCATION OF ALL NEW OR EXTENDED FOUNDATIONS WITH THE LOCATION OF ALL PROPOSED CONSTRUCTION ACTIVITY REPORTED ON THE PERMIT APPLICATION. NO FURTHER CONSTRUCTION MAY COMMENCE UNLESS THE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL FIND THAT THE FOUNDATION LOCATION IS CONSISTENT WITH THE PERMIT AS ISSUED AND SHALL SO CERTIFY. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION SHALL BE GROUNDS FOR THE ISSUANCE OF A CITATION PURSUANT TO SECTION ZN 6.03.(3) OF THIS ORDINANCE, AND ATTENDANT PENALTIES.
3. CONTRACTOR SHALL OBTAIN AND FOLLOW THE VILLAGE OF SOMERS DEVELOPMENT STANDARDS DATED APRIL 3,2018 AND STANDARD MATERIAL SPECIFICATION CHECKLIST DATED JULY 2023 FOR ALL CONSTRUCTION REQUIREMENTS. IF DISCREPANCIES ARE NOTICED, CONTRACTOR SHALL CONFORM TO VILLAGE OF SOMERS REQUIREMENTS.

CIVIL SHEET INDEX

SHEET	SHEET TITLE
C0.1	CIVIL COVER AND SPECIFICATION SHEET
C0.2	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C1.0	EXISTING SITE AND DEMOLITION PLAN
C1.1	SITE PLAN
C1.2	GRADING AND EROSION CONTROL PLAN
C1.3	UTILITY PLAN
C1.4	LANDSCAPE AND RESTORATION PLAN
C2.0	DETAILS
C2.1	DETAILS
C3.1	SITE PHOTOMETRIC PLAN & DETAILS



LOCATION MAP

PROJECT LOCATION MAP

PLAN SPECIFICATIONS

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS, UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSED DEPTH FOR MATERIALS COMPACTED BY HAND-OPERATED TAMPERS.
F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT
   1. UNDER FOUNDATIONS - SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 98 PERCENT.
   2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   5. UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 85 PERCENT.
G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF RISING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY: TBD.
H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, OR ONE TEST PER EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED FINISHED GRADE ELEVATIONS ALLOWING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION SITE NOTICE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL PRACTICES IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS, TECHNICAL STANDARDS ADOPTED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
B. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.

G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO THE PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL REVIEW AND FOLLOW RECOMMENDATIONS FOUND IN THE GEOTECHNICAL REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (S LT 58-28S)	1-1/2" SURFACE COURSE (S LT 58-28S)
(WISDOT 455.2.5 TACK COAT (STAGED PAVING)	WISDOT 455.2.5 TACK COAT (STAGED PAVING)
2" BINDER COURSE (4 LT 58-28S)	2-1/2" BINDER COURSE (4 LT 58-28S)
10" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE

B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
D. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN MIX FOR CONCRETE CONSTRUCTION - ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. DUMPSTER PAD CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1). TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1). CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL CONCRETE SHALL BE 1" INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE A

Village of Somers, Wisconsin

Standard Material Specification Checklist

Established 1843 Somers VILLAGE & TOWN

Prepared by:

BAXTER & WOODMAN Consulting Engineers

www.baxterwoodman.com

Date: March 22, 2018
Last Revised: July 2023

GENERAL

- Comply with the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition.
- Obtain written approval for the proposed Plans and Specifications from the Village Engineer prior to construction.

SANITARY SEWER

GENERAL

- Bedding & cover material: 3/8" crushed limestone chips to 12" above pipe (pea gravel is not acceptable).
- Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- Consolidation of backfill: 95% standard Proctor density for imported granular material and 100% for excavated material of existing aggregate material in the adjacent trench wall. Use mechanical means, unless allowed otherwise.
- Mandrel test: 95% mandrel after 30-days.
- Internal sewer inspection: Closed circuit color television with a small flow of water in the pipe.
- Low-pressure air test: Per Standard Specifications.
- Manhole vacuum test: Per Standard Specifications.

PIPE MATERIAL

- Minimum 8-inch PVC SDR-26 (min.) conforming to ASTM D-3034, unless allowed otherwise.

MANHOLE MATERIALS

- 48-inch ID precast concrete w/eccentric cone (typ.), ASTM C478. Manhole steps shall be removed on the top section after construction is complete.
- Design flat top slabs to resist H-20 loading.
- Frames and covers: Neenah R-1580 or equal, with Type B non-rocking lid, stamped with the word "SANITARY"; self-sealing gaskets; and concealed pick holes.
- Floodplain Areas: Use bolted and gasketed watertight frame and cover: Neenah R-1916-C, East Jordan 1058 WT, or equal.
- Use a minimum of 4 inches and a maximum of 19 inches of concrete adjusting rings.
- Internal/external chimney seals: Adaptor, Inc. or equal.
- Exterior joint protection: WrapidSeal by CCI Pipeline Systems or MacWrap by Mar Mac Construction Products.
- Exterior surface treatment: Heavy-duty coal tar pitch, Top-Coat or bituminous Super Service Black.

SANITARY LATERALS

- Minimum 6-inch PVC SDR-26.
- Provide wye connections unless allowed otherwise by Village Engineer. Provide ductile iron riser tee on deeper installations.
- Terminate lateral pipe with a wooden 2x4 set one foot above finish grade.

- Lateral pipe locator wire and terminal post: No. 10 AWG single strand insulated copper wire and Copperhead Industries – Snake Pit Terminal Box, or approved equal.

WATER MAIN

GENERAL

- Only joint deflections within pipe manufacturer's specifications are permitted without fittings.
- Polyethylene wrap: Provide 8 mil on ductile iron pipe, valves, valve boxes, fittings, fire hydrant barrel sections, and curb boxes.
- Bedding & cover material: 3/8" crushed limestone chips to 12" above pipe (pea gravel is not acceptable).
- Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- Operation of valves: By Village representatives or agents unless allowed otherwise.
- One-hour pressure test: 150 psi with no loss.
- Leakage test (only if pressure test fails): Two hours at system pressure per Standard Specifications.
- Water services over 2-inch diameter shall meet the specifications for water main and include a gate valve/valve box at the point of connection to the water main.
- Water services equal or less than 2-inch diameter shall meet the specifications for water services and have a curb stop/service box placed one foot from the right-of-way line.

PIPE MATERIAL

- ~~Ductile iron: Conforming to AWWA C-151/ANSI A21.51, minimum Class 52.~~
- PVC: Conforming to AWWA C-900, class 150, SDR 18.
- Tracer wire shall be installed with PVC pipe, extend wire to hydrants terminated in a Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~4-inch diameter by 30-inch long PVC pipe with a threaded cap~~ set behind the hydrant.

LOCATOR WIRE

- Tracer locator wire: Install with PVC pipe, single strand blue insulated copper, minimum No. 10 AWG.
- Location: On top of PVC pipe and fittings, secure at min. 10-foot intervals.
- Terminal Box: Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~2-1/2 inch by 18-inch C.P. Test Services – Valvco.~~
- Extend locator wire to top of terminal boxes leaving 12 inches of slack for future connection and connect to terminal box.
- Secure terminal box to back side of fire hydrant barrel and all service curb stops and set top of box flush with finished grade. Connect service locator wire to water main locator wire.

FITTINGS

- Only American-made fittings, pipe, valves, and hydrants will be allowed.
- Ductile iron fittings: Meet AWWA C-110/ANSI A21.10 or A21.53.
- ~~All fittings shall be full-bodied styles.~~
- If a sleeve is required, a full-bodied solid sleeve shall be used.

- Fittings shall be polyethylene wrapped per Standard Specifications.
- Bolts and nuts: Cor-Blue or A-304 stainless steel, no substitutions.
- Use restrained joints on all fittings.
- Thrust blocking (in addition to restrained mechanical joints): Solid concrete masonry units or Class F poured concrete per Section 4.3.13 of the Standard Specifications. Wood thrust blocking will not be permitted.

VALVES

- 4-inch to 12-inch: Resilient wedge gate valve, non-rising stem meeting AWWA C-509, Clow Model 2639/2640, or approved equal.
- 14-inch and larger: Butterfly valve, Clow Model 4500, or approved equal.
- Provide restrained joints on all valve fittings.

VALVE BOXES

- Three-piece, Tyler Series 6860 with bottom section compatible with valve box stabilizer, or approved equal.
- Valve box stabilizer: metal "spider" type for gate valves or butterfly valve type by Adaptor, Inc., no substitutions.
- Provide bituminous coated carbon steel valve operating extension rods with 2-inch square operating nuts terminating within 2 inches below the lid for all main line valves. ~~that are buried deeper than 8 feet from top of pipe.~~
- Do not extend tracer wire into valve boxes.

TAPPING VALVE AND SLEEVES

- Two-piece bolted stainless steel type with mechanical joints.
- Sleeve Model/Manufacturer: Cascade CST extra heavy duty, or approved equal.
- Valve Model/Manufacturer: Clow F-5093 or Kennedy C950.

WATER SERVICES

- Pipe: Type K copper tubing or High Density Polyethylene tubing, SDR 9, 200 psi, copper tube sized.
- Size: 1-inch, 1 ½-inch, and 2-inch.
- Utilize stainless steel stiffeners of compatible size and connection type.
- Depth of bury: Between 6-feet and 6.5-feet from main to curb box.
- Service pipe shall be seamless from the main to the curb box.
- Service saddles for connecting to PVC pipes: Stainless steel saddle with O-ring and grade 30 rubber grid map; Cascade styles CSC1, CSC2, CS22, or approved equal.
- Corporation stops: McDonald No. 4701BQ ball valve with AWWA/CC taper thread inlet and compression connection outlet.
- Curb stops: McDonald No. 6106, or approved equal.
- Service boxes: (Extension type with stationary rods, McDonald No. 5614 for 3/4" and 1" sizes and McDonald No. 5615 for 1-1/2" and 2" sizes.
- Polywrap service box.
- Place locator wire on top of water service lines and extend to terminal box adjacent to the service box.

FIRE HYDRANTS

- Model/Manufacturer: Mueller A-423.
- Color: Factory painted red with the nozzle caps and operating nut painted silver gray.
- Nozzle height: 18-inches to 26-inches to finish grade.

- Equip steamer nozzle with a factory-installed 5" Storz Quick Connect.
- Standard hydrant extensions are required for hydrants with over 6 feet of cover, or where required to adjust nozzle height.
- Auxiliary valves: Connect directly to water main at an anchor tee.
- Hydrant lead pipe: ~~Class 52 ductile iron or~~ C-900 PVC with restrained joints.
- Hydrant leads and fittings: Restrain by Mega-lug gland or approved equal.
- Provide stop nut or factory-installed means of preventing damage to hydrant when torque is applied to close hydrant.
- Spacing: Maximum 400 feet (residential subdivisions).
- Place locator wire terminal boxes at all hydrant locations.
- Install 3/8" diameter, 5' long fiberglass hydrant marker with spring and reflective bands on all hydrants.

STORM SEWER

GENERAL

- Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- Consolidation of backfill: 95% standard Proctor density for imported granular material and 100% for excavated material of existing aggregate material in the adjacent trench wall. Use mechanical means, unless allowed otherwise.
- Provide sump pump connection/storm sewer pipes for all new homes with flexible watertight tee service connector, KOR-N-TEE by NPC Systems, or approved equal.

PIPE MATERIAL

- Within road right-of-way: Minimum 12-inch reinforced concrete pipe, minimum class III, conforming to ASTM C76 or ASTM C507.
- Outside road right-of-way: Alternate pipe material, such as HDPE ADS N-12, may be permitted by Village Engineer.
- Rubber O-ring gasket pipe required.

MANHOLE MATERIALS

- Design flat top slabs to resist H-20 loading.
- Frames and closed lids: Heavy duty, indented top solid lid, non-rocking, Neenah R-1580 with Type B lid or approved equal.
- Frames and open lids: Heavy duty, Neenah R-2504 with Type D grates, or approved equal.
- Beehive grate manhole covers: Neenah R-2560 E1 or approved equal.
- Manholes shall be 4'-0" diameter minimum.
- Joints for manhole riser section shall be made with non-shrink grout, rubber "O"-ring gaskets, a continuous ring of butly rubber sealant (EZ-Stik or Kent Seal in rope form) or approved equal.
- Adjusting rings and manhole frames shall be set with non-shrink grout or butyl rubber sealant troweled into a 1/4-inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent Seal butyl base sealant in trowelable grade or approved equal.

CATCH BASINS

- 2'x3' precast concrete box with a minimum 12-inch sump for catch basins in the curb line.
- 2' diameter precast concrete structure with a minimum 12-inch sump for catch basins in grassed areas.
- Do not place catch basins within the entire curb return at intersections, if possible.
- Curb inlet frames: Neenah R-3067-L.
- Turf area drainage grates: Beehive type, Neenah R-2560 E1 or approved equal.

DRIVEWAY CULVERTS

- Minimum 15-inch diameter CMP or RCP with flared end sections.

STORM LATERALS

- Minimum 6-inch PVC SDR-26.
- Provide wye connections unless allowed otherwise.
- Terminate lateral pipe with a wooden 2x4 set one foot above finish grade.
- Lateral pipe locator wire and terminal post: No. 10 AWG single strand insulated copper wire and Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~2-1/2 inch by 18-inch C.P. Test Services – Valvco terminal box.~~

STREET PAVEMENTS

PAVEMENT MARKINGS

- Epoxy pavement markings required for streets.

EXCEL

Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

PRELIMINARY DATES
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C0.2

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:

SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2158603, BY KNIGHT BARRY TITLE, INC., DATED JUNE 27, 2022. AN UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL EXISTING SITE AND DEMOLITION PLAN

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

PRELIMINARY DATES
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C1.0

SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

EXISTING SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	4.16	181,256	
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.00	0	0.0%
TOTAL IMPERVIOUS	0.00	0	0.0%
LANDSCAPE/ OPEN SPACE	4.16	181,256	100.0%

PROPOSED SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	4.16	181,256	
BUILDING FLOOR AREA	0.32	14,075	7.8%
PAVEMENT (ASP. & CONC.)	1.36	59,284	32.7%
TOTAL IMPERVIOUS	1.68	73,359	40.5%
LANDSCAPE/ OPEN SPACE	2.48	107,897	59.5%

PAVEMENT HATCH KEY:

- STANDARD ASPHALT
- HEAVY DUTY ASPHALT
- SIDEWALK CONCRETE
- DUMPSTER PAD CONCRETE

SITE INFORMATION:

OVERALL PROPERTY: LOT 4 OF CERTIFIED SURVEY MAP NUMBER 3050 BEING PART OF THE NW ¼, NE ¼, AND SE ¼ OF THE SW ¼, S7, T2N, R22E, VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN AS DOCUMENT NUMBER 1948790

PROPOSED LOT 4 PROPERTY AREA: 181,256 S.F. (4.16 ACRES).

EXISTING ZONING: A-4

PROPOSED ZONING: B-3 WITH PUD (REZONE INCLUDED WITH MASTER DEVELOPMENT)

PROPOSED USE: LOT 4 – HOTEL

AREA OF SITE DISTURBANCE: ± 135,000 S.F. (3.10 ACRES)

SETBACKS: BUILDING: FRONT (WEST) = 65'
SIDE (NORTH/SOUTH) = 30'
REAR (EAST) = 30'

PAVEMENT: FRONT (WEST) = 20'
SIDE (NORTH/SOUTH) = 10'
REAR (EAST) = 10'

PROPOSED BUILDING HEIGHT: 56'-0" (MAX. HEIGHT ALLOWED: 35'-0")
– EXCEEDANCE INCLUDED WITH PUD REQUEST AS PART OF MASTER DEVELOPMENT

PARKING REQUIRED: TOTAL SPACES REQ. = 122 SPACES
1 SPACE PER 1 EMPLOYEE (15 SPACES REQ.)
+ 1 PER GUEST ROOM (107 SPACES REQ.)

PARKING PROVIDED: 129 SPACES (5 H.C. ACCESSIBLE)

HANDICAP STALLS REQUIRED: 5, HANDICAP STALLS PROVIDED: 5

HOURS OF OPERATION: TBD

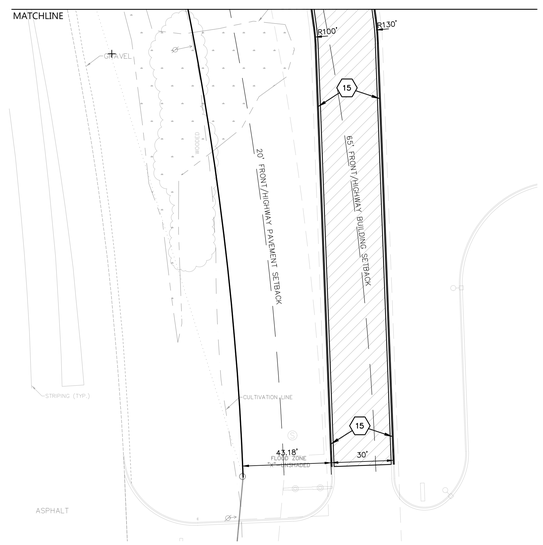
BUILDING OCCUPANCY CLASSIFICATION: R

CLASS OF BUILDING CONSTRUCTION: IIB

LANDSCAPE REQUIREMENTS: MAXIMUM LOT COVERAGE – BUILDING ONLY: 35%

SITE PLAN KEYNOTES

8	CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR DETAILS.
9	RAISED WALK (TYP.)
12	CURB RAMP 1 (TYP.)
13	CURB RAMP 2 (TYP.)
14	18" CURB & GUTTER (TYP.)
15	18" MOUNTABLE CURB & GUTTER (TYP.)
16	CURB TAPER (TYP.)
17	CURB CUT (TYP.)
18	CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION & DESIGN PRIOR TO CONSTRUCTION)
19	HANDICAP SIGN (TYP.)
20	HANDICAP STALL & STRIPING PER STATE CODES.
22	PYLON/MONUMENT SIGN (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
23	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
26	FLAGPOLE – FINAL TYPE, COLOR, HEIGHT, LOCATION, ETC. BY SUPPLIER IN COORDINATION WITH OWNER.
30	EQUIPMENT SCREENING FENCE (TYP.)
31	BUILDING CANOPY (TYP.) SEE ARCH. PLANS FOR DETAILS.
32	GAZEBO (TYP.) SEE ARCH. PLANS FOR DETAILS.
33	CONCRETE EQUIPMENT PAD (TYP.) VERIFY PAD SIZE WITH CONTRACTOR REQUIRING PAD PRIOR TO CONSTRUCTION.
34	REMOTE FDC AND HYDRANT CONCRETE PUMPER PAD (PER VILLAGE DETAIL)
35	FLOW THROUGH CURB (SEE DETAIL)
X(X)	IDENTIFICATION: KEYNOTE ITEM(QUANTITY) – IF NO () = QUANTITY IS 1



NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL SITE PLAN

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

PRELIMINARY DATES
JAN. 29, 2024
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C1.1

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:

SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

NOTES:

1. HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
2. ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.

STABILIZED CONSTRUCTION ENTRANCE NOTE:

CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.

CONCRETE WASHOUT NOTE:

CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.

NORTH

1" = 30' SCALE

30' 0 30' 60' FEET

CIVIL GRADING AND EROSION CONTROL PLAN

EXCEL

Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:

SOMERS HOTEL

SOMERS • WI, 53171

PROFESSIONAL SEAL

PRELIMINARY DATES

APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER

230477100

SHEET NUMBER

C1.2

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:

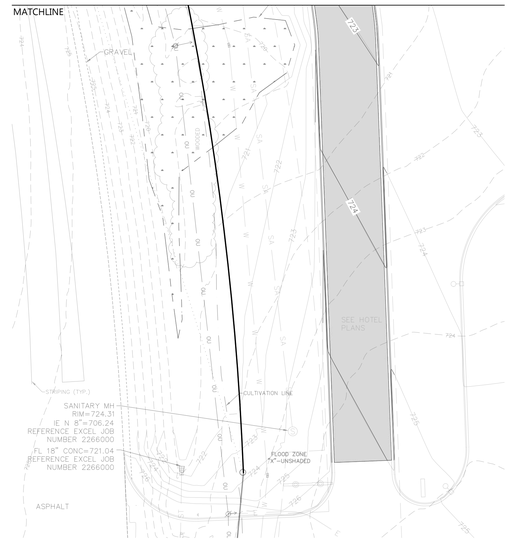
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

DOWNSPOUT NOTE:

DS = DENOTES DOWNSPOUT TO GRADE LOCATIONS. PROVIDE SPLASH BLOCKS AT ALL DS TO GRADE LOCATIONS. SEE ARCH PLANS FOR FINAL LOCATIONS.

CLEANOUT NOTE:

CO = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL CLEANOUTS, SEE C0.1 FOR SPECIFICATION.



EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

PRELIMINARY DATES
APR. 26, 2024

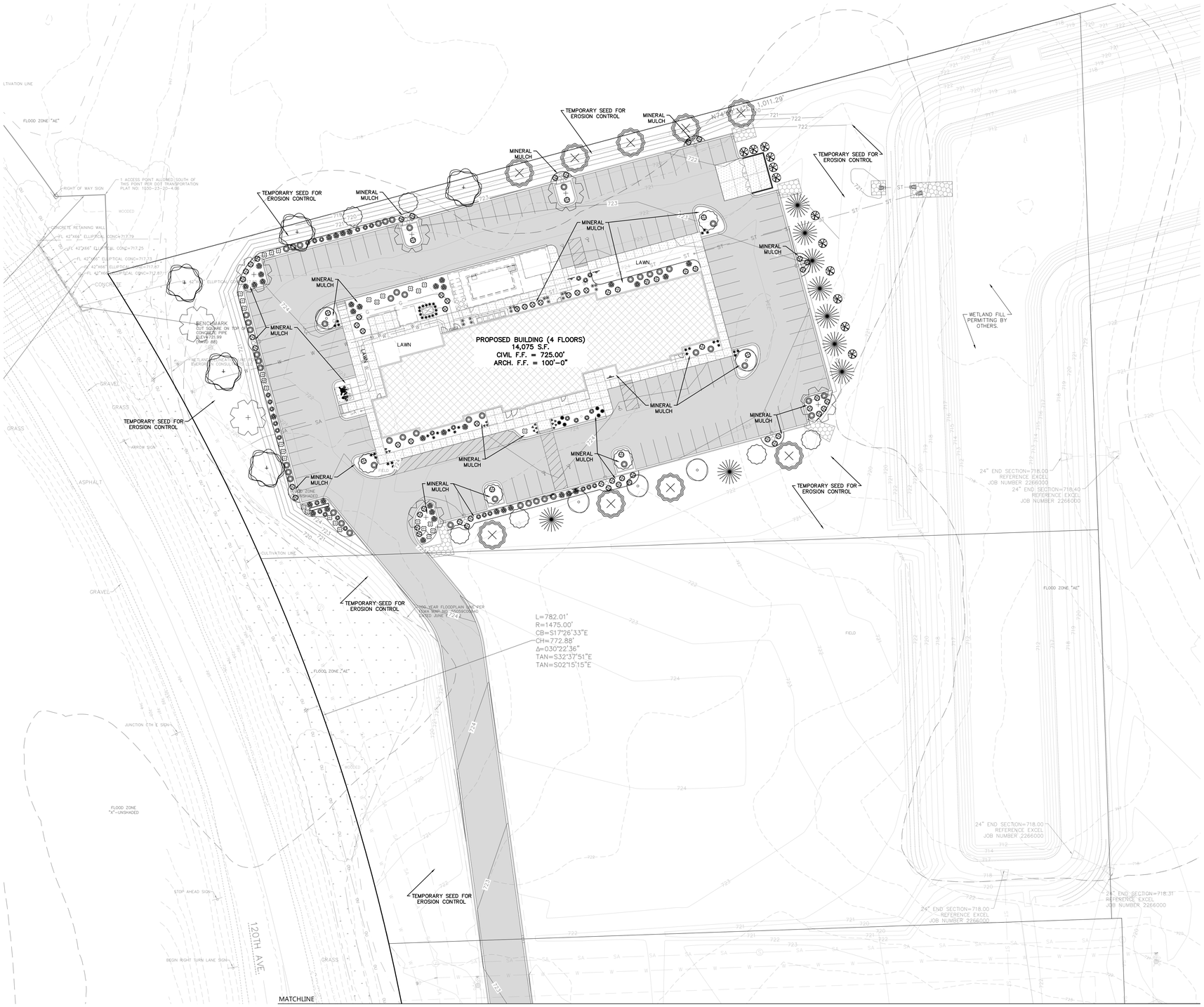
NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C1.3

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL UTILITY PLAN



VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

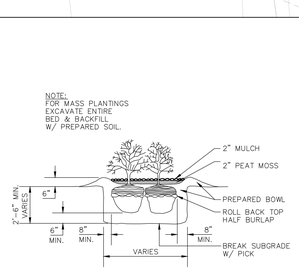
SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

LANDSCAPING NOTES

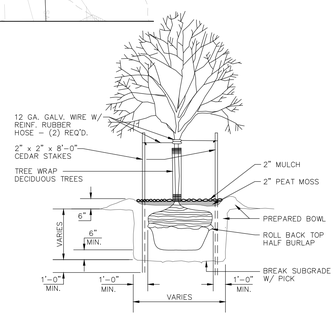
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
	DECIDUOUS TREES			
	Skyline Honeylocust	Gleditsia triacanthos 'Skyline'	2"	5
	Redmond Linden	Tilia americana	2"	7
	Flowering Crabapple (Spring Snow)	Malus x hybrid (Spring Snow)	2"	10
	Japanese Tree Lilac	Syringa reticulata	5' tall	5
	EVERGREEN TREES			
	Black Hills Spruce	Picea glauca	6"	9
	Austrian Pine	Pinus nigra	4'	9
	DECIDUOUS SHRUBS			
	Weigela Carnaval	Weigela Florida 'courtalor'	24"	37
	Goldmound Spirea	Spiraea x bumalda 'Goldmound'	24"	29
	Shrub Roses	Explorer series 'Alex Mackenzie'	1 gal pot	32
	Sunrise Forsythia	Forsythia 'Sunrise'	18"–24"	50
	EVERGREEN SHRUBS			
	Techny Arborvitae	Thuja occidentalis	48"	12
	Wintergreen Boxwood	Buxus microphylla var. 'Wintergreen'	42"–48"	70
	PERENNIALS			
	Karl Foerster Reed Grass	Calamagrostis x acutiflora 'Karl Foerster'	1 gal pot	41
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	18
	Oriental Lily – Friso	Lilium	1 gal pot	6
	Creeping Broadleaf Sedge	Carex siderosticha	1 gal pot	16

LANDSCAPING CALCULATIONS

ZONE	REQ. PLANTS	PLANTS PROVIDED
OPEN YARD AREA	1 DECIDUOUS/EVERGREEN TREE PER 1,000 SF 2 ORNAMENTAL TREES OR 2 SHRUBS=1 TREE 40,000 SF/1,000 SF = 40 TREES	12 EVERGREEN TREES PROVIDED 4 DECIDUOUS TREES PROVIDED 4 EVERGREEN SHRUBS PROVIDED 62 DECIDUOUS SHRUBS PROVIDED
BUILDING FOUNDATION	1 ORNAMENTAL TREE OR 2 SHRUBS PER 20' 643'/20' = 33 TREES OR 66 SHRUBS	27 EVERGREEN SHRUBS PROVIDED 39 DECIDUOUS SHRUBS PROVIDED 79 PERENNIALS PROVIDED
STREET FRONTAGE (WEST)	1 EVERGREEN/DECIDUOUS TREE PER 50' 2 ORNAMENTAL TREES OR 2 SHRUBS=1 TREE 226'/50'= 5 EVERGREEN/DECIDUOUS TREES	5 DECIDUOUS TREES
PARKING LOT	1 EVERGREEN/DECIDUOUS TREE PER 25' 2 ORNAMENTAL TREES OR 4 SHRUBS=1 TREE 828'/25' = 34 EVERGREEN/DECIDUOUS TREES	10 DECIDUOUS TREES PROVIDED 6 EVERGREEN TREES PROVIDED 43 EVERGREEN SHRUBS PROVIDED 29 DECIDUOUS SHRUBS PROVIDED
PARKING LOT (INTERIOR)	EVERY INTERNAL LANDSCAPE ISLAND SHALL CONTAIN AT LEAST ONE DECIDUOUS OR EVERGREEN TREE	PROVIDED



SHRUB PLANTING DETAIL
NO SCALE



TREE PLANTING DETAIL
NO SCALE

NORTH
1" = 30'
30' 0 30' 60'
SCALE FEET

CIVIL LANDSCAPE AND RESTORATION PLAN

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

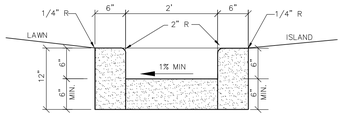
PROFESSIONAL SEAL

PRELIMINARY DATES
APR. 26, 2024

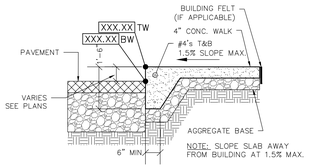
NOT FOR CONSTRUCTION

JOB NUMBER
230477100

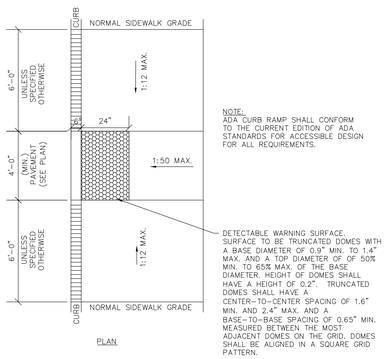
SHEET NUMBER
C1.4



FLOW THROUGH CURB DETAIL
NO SCALE

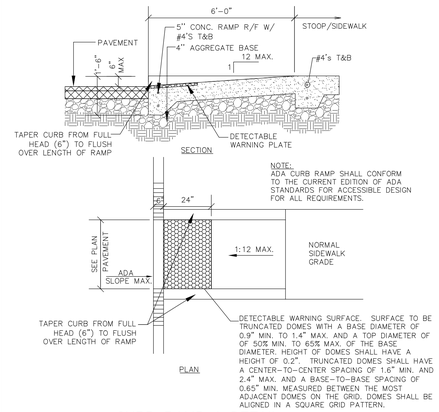


RAISED WALK DETAIL
NO SCALE



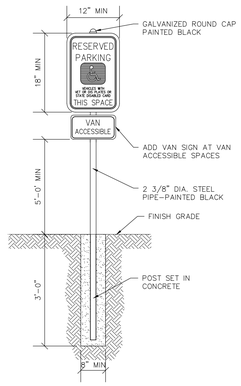
NOTE:
ADA CURB RAMP SHALL CONFORM TO THE CURRENT EDITION OF ADA STANDARDS FOR ACCESSIBLE DESIGN FOR ALL REQUIREMENTS.

CURB RAMP 2 DETAIL
NO SCALE

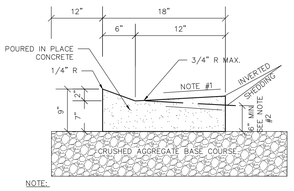


CURB RAMP 1 DETAIL
NO SCALE

SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

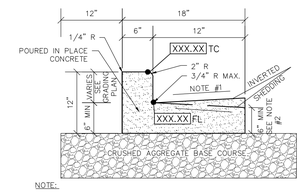


HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL
NO SCALE



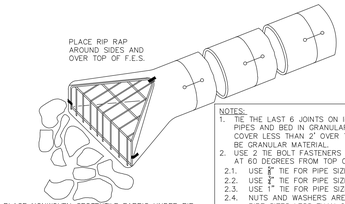
NOTE:
1. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
3. SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

18" MOUNTABLE CURB & GUTTER DETAIL
NO SCALE

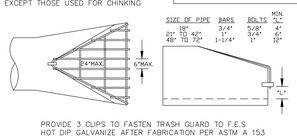


NOTE:
1. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
3. SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

18" CONCRETE CURB & GUTTER DETAIL
NO SCALE

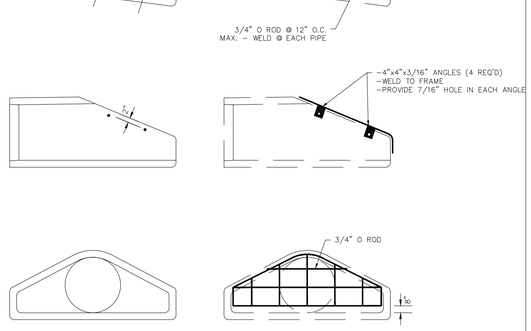


NOTES:
1. THE LAST 6 JOINTS ON INLET AND OUTLET PIPES AND BED IN GRANULAR MATERIAL. ANY COVER LESS THAN 2' OVER TOP OF PIPE SHALL BE GRANULAR MATERIAL.
2. USE 2 TIE BOLT FASTENERS PER JOINT INSTALLED AT 60 DEGREES FROM TOP OR BOTTOM OF PIPE.
   2.1. USE 3/8" TIE FOR PIPE SIZES 12" TO 60"
   2.2. USE 5/8" TIE FOR PIPE SIZES 66" TO 84"
   2.3. USE 1" TIE FOR PIPE SIZES OVER 90-108"
   2.4. NUTS AND WASHERS ARE NOT REQUIRED ON PIPE SIZES LESS THAN 21"
3. TRASH GUARDS WILL BE REQUIRED ON 18" OR LARGER PIPE. IN PLACE OF TRASH GUARDS, ENERGY DISSIPATORS MAY BE USED.
4. PIPE TIES SHALL CONFORM TO WI DOT SD 8F4 TECHNICAL STANDARDS



PROVIDE 3 CLIPS TO FASTEN TRASH GUARD TO F.E.S HOT DIP GALVANIZE AFTER FABRICATION PER ASTM A 153

CONCRETE END SECTION DETAIL
NO SCALE

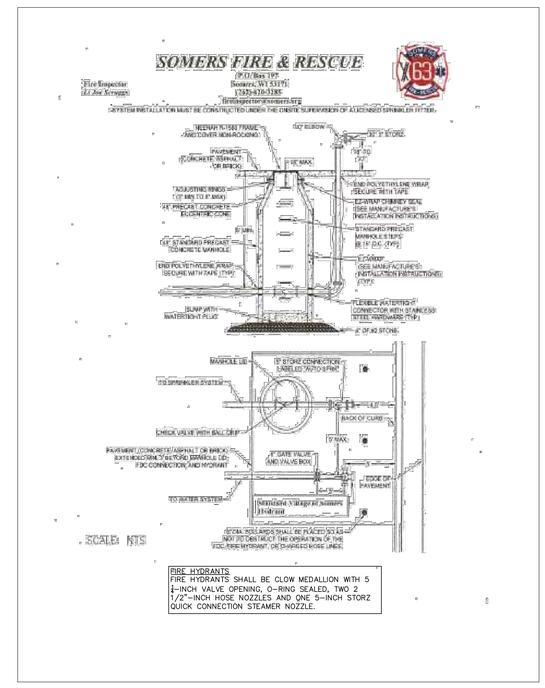


- THE CONTRACTOR SHALL BOLT THE GRATE TO THE CONCRETE END WALL WITH FOUR 3/8" x 6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.
- APPLICABLE FOR PIPE SIZES 18" AND GREATER.

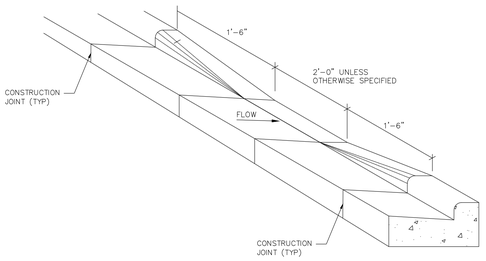
PAINTING SPECIFICATIONS
THE PIPE GRATE SHALL RECEIVE THE FOLLOWING PREPARATION & PAINTING, SEE NOTES:
FIRST COAT- RUST-OLEUM X-60 RED BARE METAL PRIMER OR EQUAL
SECOND COAT- RUST-OLEUM 960 ZINC CHROMATE PRIMER OR EQUAL
THIRD COAT- RUST-OLEUM 1282 HIGH GLOSS & METALLIC FINISH OR EQUAL.

NOTES:
- BARE SURFACES - AFTER THROUGH SCRAPING, WIRE BRUSHING & CLEANING, APPLY THE THREE COAT SYSTEM LISTED.
- EACH COAT AN OVERALL COAT
- ALLOW 24-48 HOURS DRYING TIME BETWEEN COATS.

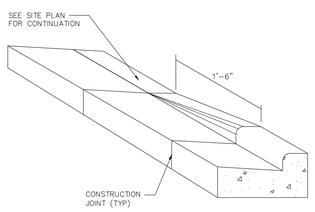
GRATE INSTALLATION DETAIL
NO SCALE



PIRE HYDRANTS
FIRE HYDRANTS SHALL BE CLOW MEDALLION WITH 5 ½-INCH VALVE OPENING, O-RING SEALED, TWO 2 1/2"-INCH HOSE NOZZLES AND ONE 5-INCH STORZ QUICK CONNECTION STEAMER NOZZLE.



CURB CUT DETAIL
NO SCALE



CURB TAPER DETAIL
NO SCALE

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

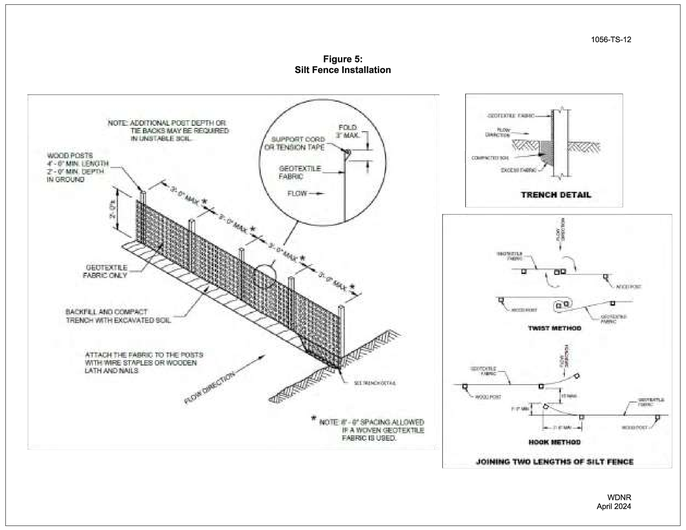
PRELIMINARY DATES
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

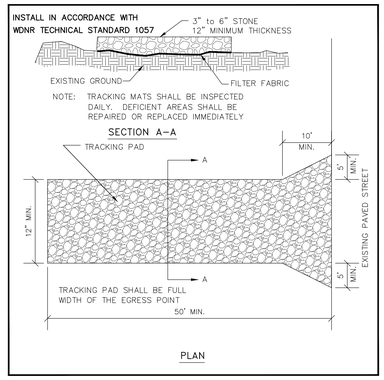
SHEET NUMBER
C2.0

CIVIL DETAILS



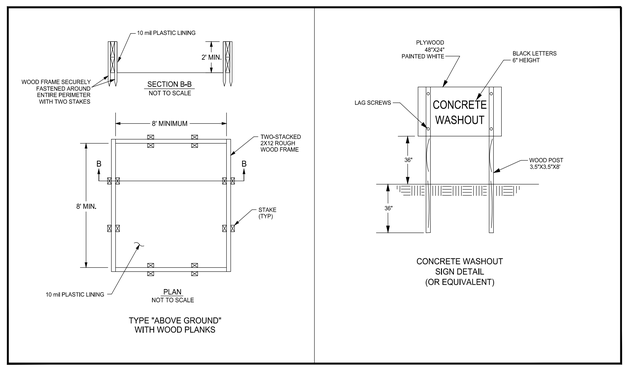
SILT FENCE – INSTALLATION DETAIL

NO SCALE



TRACKPAD DETAILS

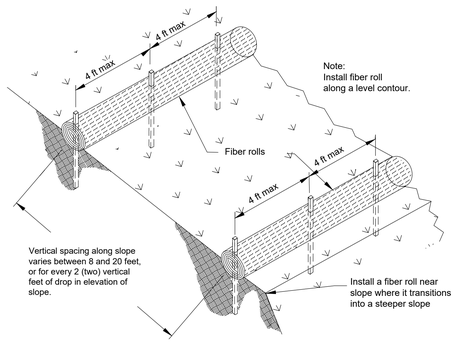
NO SCALE



CONTRACTOR TO ADHERE TO WI DNR STANDARDS

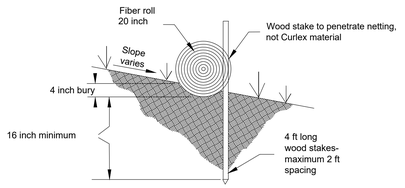
CONCRETE WASHOUT DETAIL

NO SCALE



TYPICAL FIBER ROLL INSTALLATION

N.T.S.



SEDIMENT LOG INSTALLATION

NOT TO SCALE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1053 (CHANNEL EROSION MAT).

VARIATIONS IN THE DIMENSIONS OR MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.

LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.

JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.

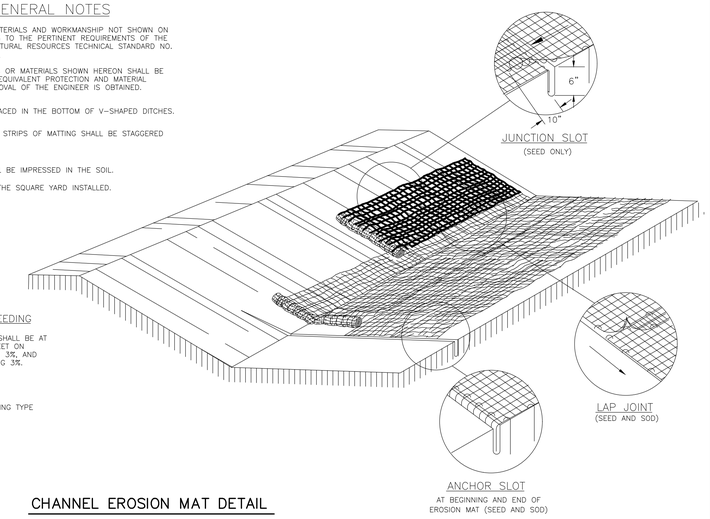
EDGES OF EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

EROSION MAT SHALL PAID BY THE SQUARE YARD INSTALLED.

EROSION MAT OVER SEEDING

JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 3%, AND 50 FEET ON GRADES EXCEEDING 3%.

NOTE:
SEE SPECIFICATIONS FOR MATTING TYPE



CHANNEL EROSION MAT DETAIL

NOT TO SCALE

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53171

PROFESSIONAL SEAL

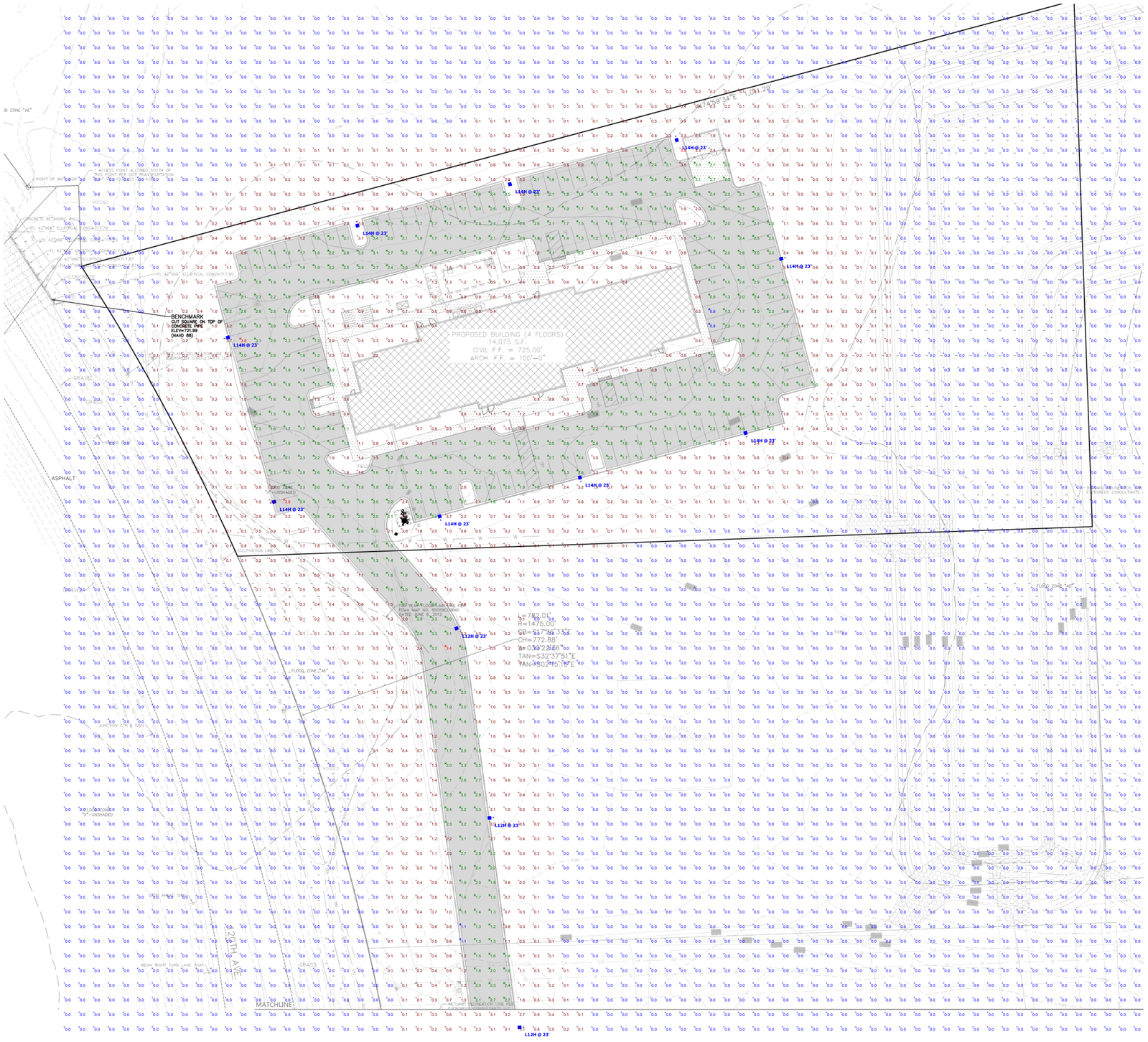
PRELIMINARY DATES
APR. 26, 2024

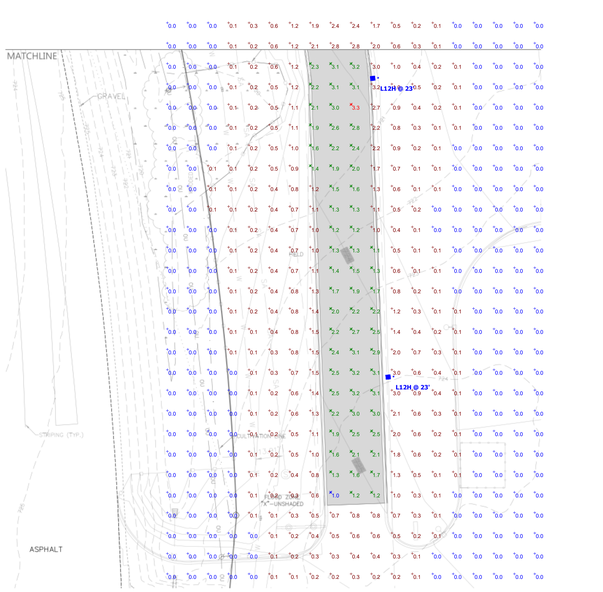
NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C2.1

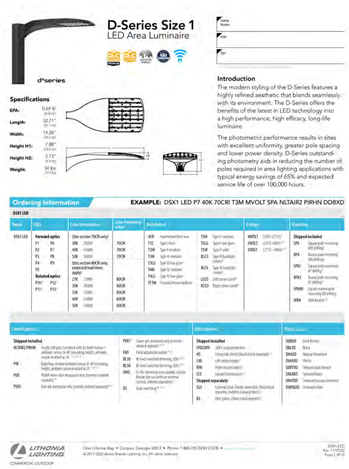
DETAILS

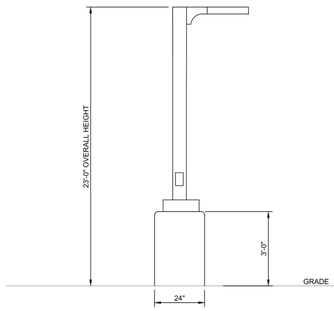




Schedule										
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Wattage
	L14H	9	Lithonia Lighting	DSX1 LED P6 40K 80CRI T4M HS	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 80 CRI Type 4 Medium Houseside Shield	1	16453	1	165.2497	
	L12H	5	Lithonia Lighting	DSX1 LED P6 40K 80CRI T2M HS	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 80 CRI Type 2 Medium Houseside Shield	1	16164	1	165.2497	

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.4 fc	3.8 fc	0.0 fc	N/A	N/A
Calc Zone #2	+	0.5 fc	3.3 fc	0.0 fc	N/A	N/A
DRIVE	X	2.2 fc	3.4 fc	1.1 fc	3.1:1	2.0:1
DRIVE CONT.	X	2.1 fc	3.3 fc	1.0 fc	3.3:1	2.1:1
PARKING LOT	X	2.0 fc	3.8 fc	0.8 fc	4.8:1	2.5:1





LIGHT POLE DETAIL

NO SCALE

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:
SOMERS HOTEL
SOMERS • WI, 53144

PROFESSIONAL SEAL

PRELIMINARY DATES
APR. 26, 2024

NOT FOR CONSTRUCTION

JOB NUMBER
230477100

SHEET NUMBER
C3.1

NORTH
1"= 30' SCALE
30' 0 30' 60' FEET

CIVIL SITE PHOTOMETRIC PLAN & DETAILS

April 26, 2024

Stormwater Management Memorandum

Project: Somers Hotel
NE Corner of Somers Rd (12th Street) & 120th Street
Somers, WI 53171

The proposed development is located on the north side of 12th street (Somers Rd/CTH E) and east side of 120th Avenue (E. Frontage Rd) in the Village of Somers, Wisconsin. The existing site is vacant, contains agricultural land, and zoned A-4. The site will be requested to be rezoned to B-3 with a Planned Unit Development (PUD) under the master development submittal (Excel Project No. 2266000, dated April 26, 2024).

The Hotel development is part of the master development of the overall 25 acre parcel that is proposed to be split into four (4) lots via certified survey map (CSM). Upon completion of the CSM, wetland permitting fill will be completed and subsequently stormwater permitting of the overall master development for a regional pond.

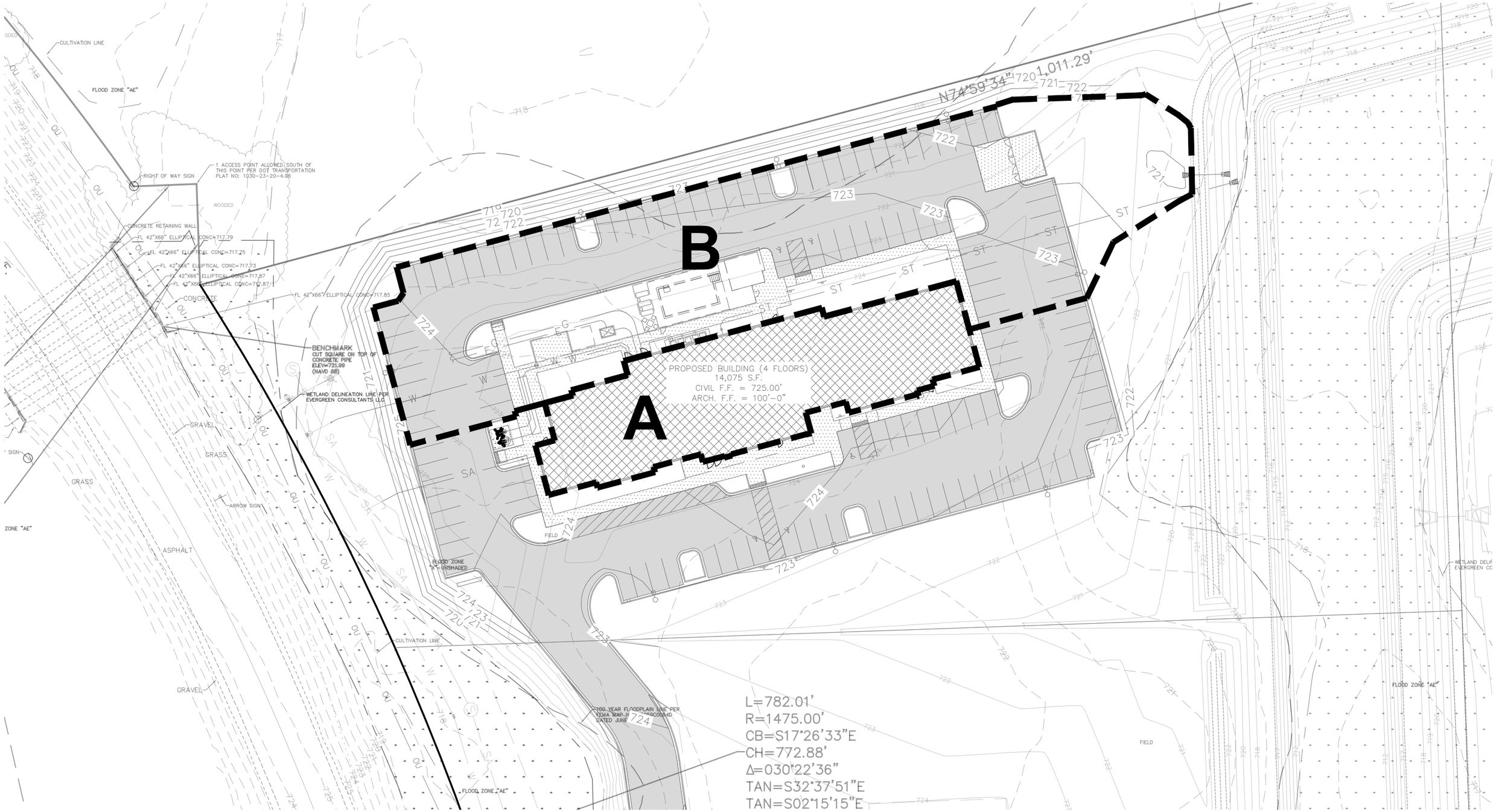
The Village of Somers Code of Ordinances require post-construction stormwater management to be implemented on sites whereupon one (1) acre or more of land disturbing construction activity occurs during construction and/or construction that results in the addition of one-half or more impervious surface within the Des Plaines River Watershed Basin.

The Hotel development on Lot 4 (primary development) will include a proposed building with parking on all sides of the building. The proposed development will drain overland to various curb cuts and grassed swales that will drain stormwater to the centrally located regional wet detention pond, as part of the master development. A storm sewer system has been designed to serve the proposed building, which will drain to the wet pond. The proposed storm sewer was sized per Wisconsin Department of Safety and Professional Services Plumbing Code (SPS 382.36(5)1.). Pipe capacity flowing full was calculated using Manning's Equation. A storm sewer basin map and storm sewer Manning's spreadsheet have been included as Attachment 1 and 2 respectively.

The regional wet detention pond as proposed by the master development was sized to serve Lot 4 and will be adequate in meeting the stormwater management standards required for the Lot 4 development. The master development stormwater report accounted for 85% impervious surface coverage and 15% open space. The primary development accounts for less than the designed amount at 40.5% impervious surface coverage and 59.5% open space. Additional information on the stormwater management calculations can be found in the master development stormwater report (Excel Project No. 2266000 dated April 26, 2024).

Attachments:

1. Storm Sewer Basin Map
2. Storm Sewer Manning's Spreadsheet



PIPE BASIN	TOTAL (SF)	TOTAL (AC)	BLDG (SF)	BLDG (AC)	PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)	TOTAL (GPM)
A	14,075	0.32	14,075	0.32	0	0.00	0	0.00	541
B	40,260	0.92	0	0.00	28,800	0.66	11,460	0.26	996

STORM SEWER BASIN MAP

NORTH

1"= 50'

50' 0 50' 100'

SCALE 1"=50' (11X17) FEET

Excel Engineering Project No. 230477100 Project Name Somers Hotel

Pipe Data					Pipe Capacity DSPS				
Pipe ID	Diameter (FT)	Pipe Qty.	Slope (FT/FT)	Manning's n	Basin ID	Total Flow (cfs)	Total Flow (gpm)	Full Flow Capacity (cfs)	Full Flow Capacity (gpm)
A	0.83	1	0.010	0.012	A	1.21	541	2.38	1,068
B	1.5	1	0.020	0.012	B	0.00	996	16.14	7,242

Full Flow Capacity based off Manning's Equation

$$Q = \frac{1.49}{n} R^{2/3} S^{1/2} a$$

Where:
Q = Full Flow Capacity of Pipe (cfs)
n = manning's roughness coefficient
R = hydraulic radius (ft) (D/4)
s = hydraulic gradient, slope (ft/ft)
a = flow area (sq. ft.)

Typical Manning's n

HDPE	0.012
PVC	0.012
Concrete	0.013
CMP	0.024

*Total Flow calculated via TR-55 hydrologic calculations. Reference Storm Pipe Basin Map & TR-55 Calculations

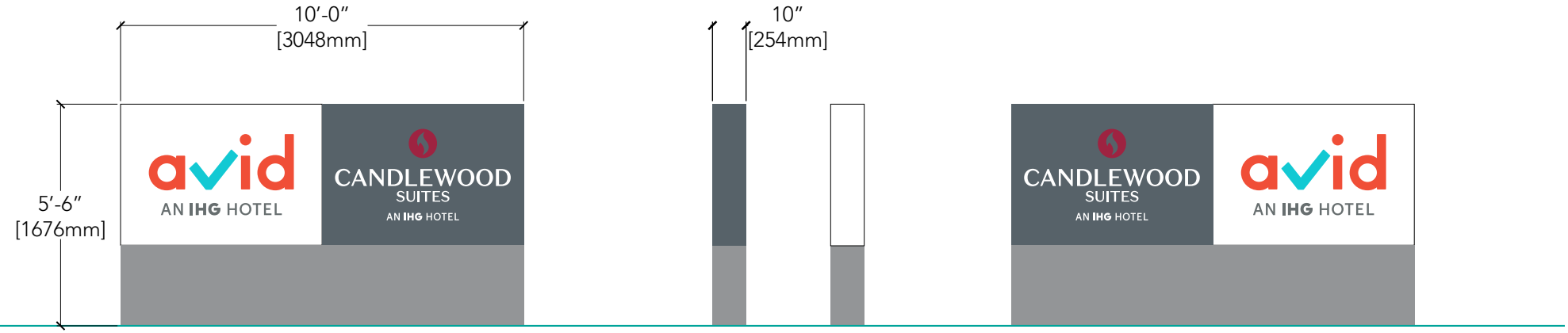
Dual Brand Preliminary Designs

This document contains guidelines set by Colite to standardize signage throughout all locations.
It is a design intent document ONLY and is not to be used for final construction.

June 15, 2021

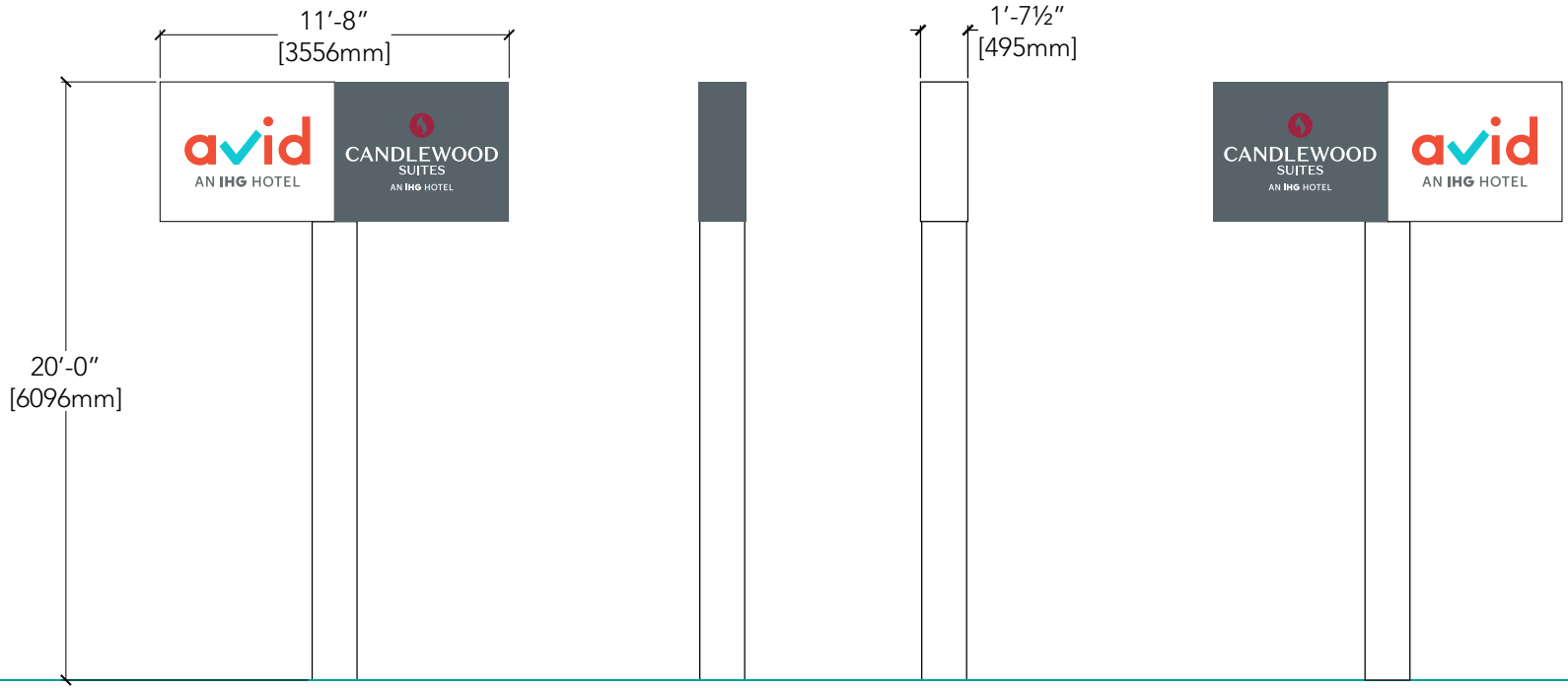
PRELIMINARY

colite
5 Technology Circle - Columbia SC 29203 - USA
+ 1.803.926.7926 P - + 1.803.926.7926 F
www.colite.com



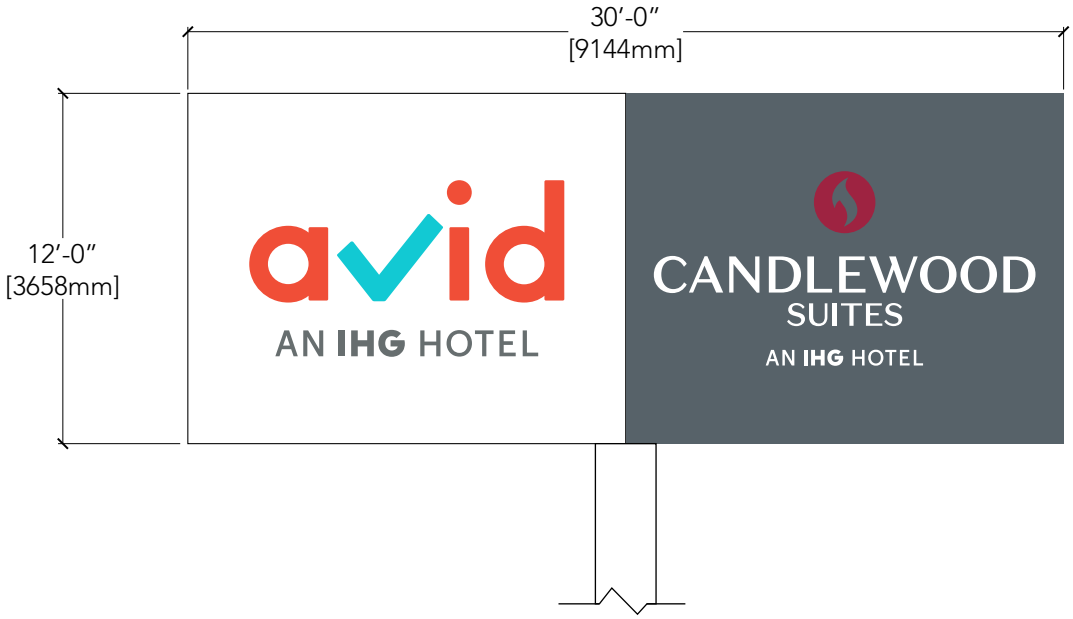
FRONT VIEW | SIDE VIEW | DOUBLE FACE BACK VIEW

NIGHT VIEW:

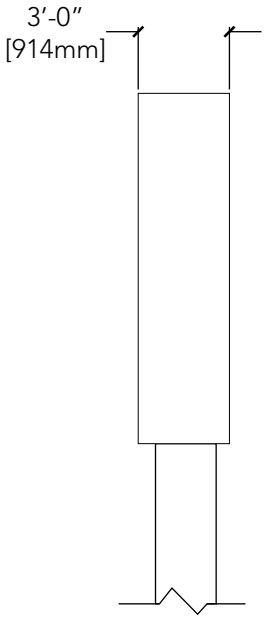


FRONT VIEW SIDE VIEW SIDE VIEW DOUBLE FACE BACK VIEW

NIGHT VIEW:



FRONT VIEW



SIDE VIEW

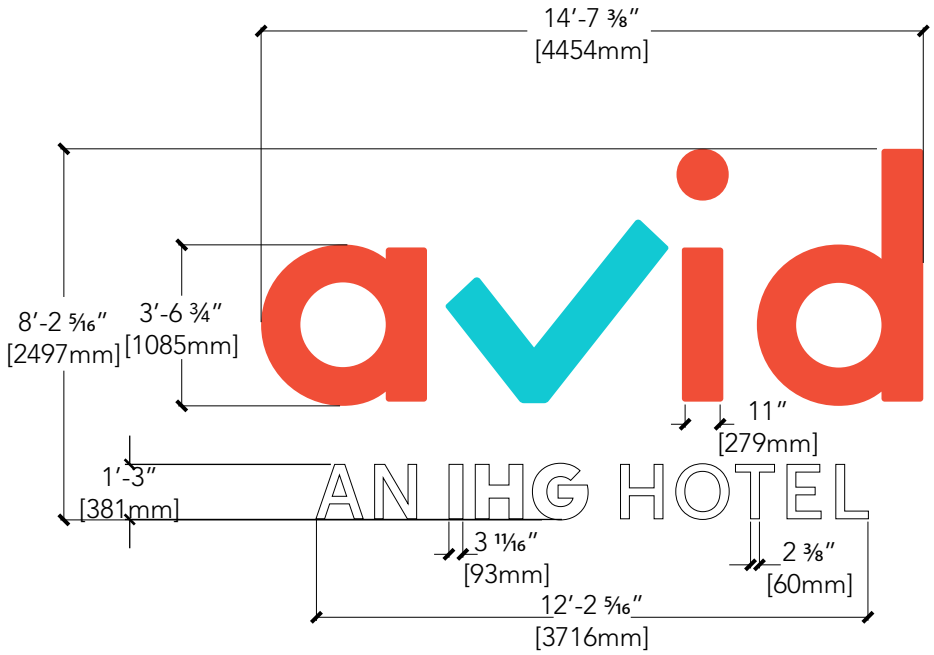
NIGHT VIEW:

SOUTH ELEVATION

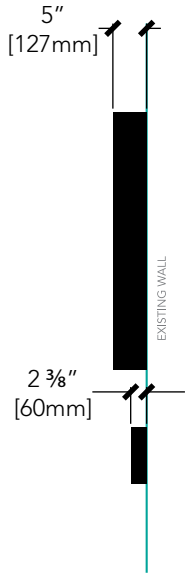
NORTH ELEVATION

North & South Elevation LTRs

AVID-LTR-501-IL-SF-098H, CS-24-CL-L-W

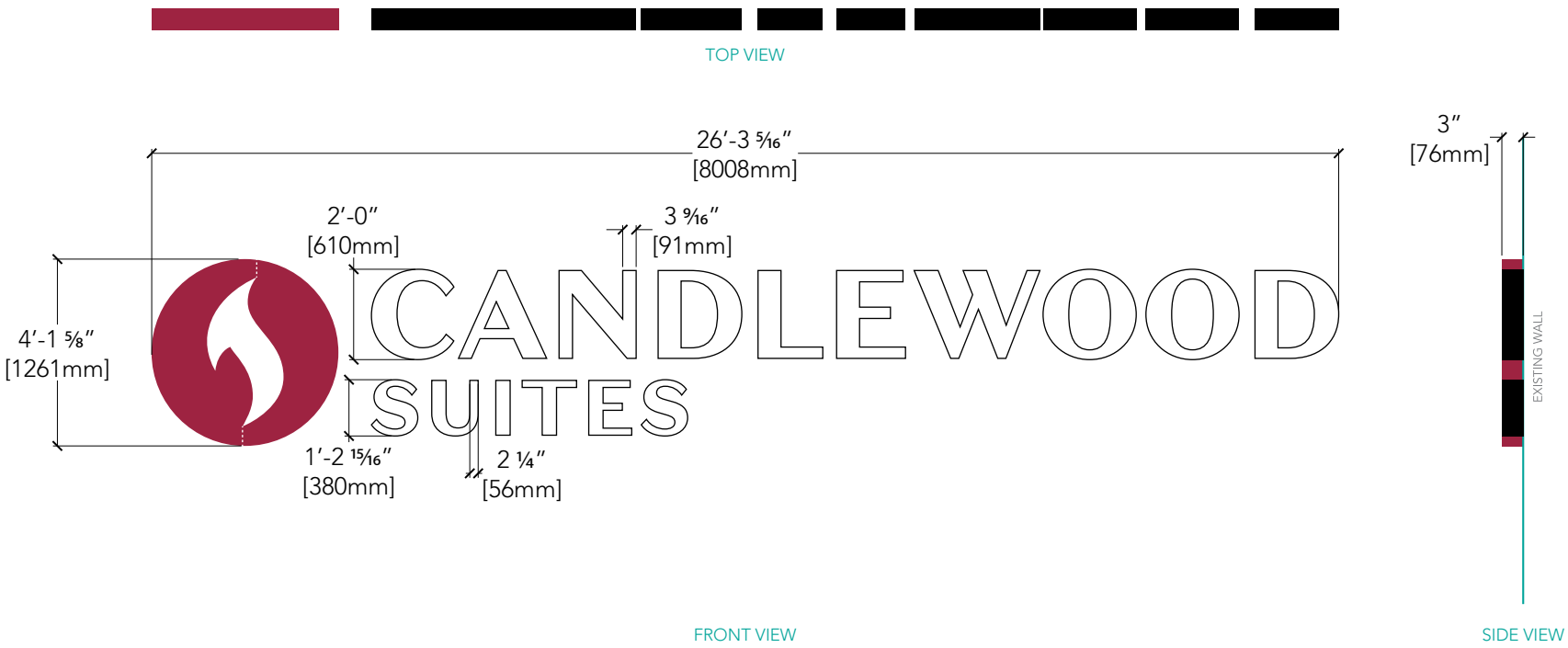


FRONT VIEW



SIDE VIEW

NIGHT VIEW:

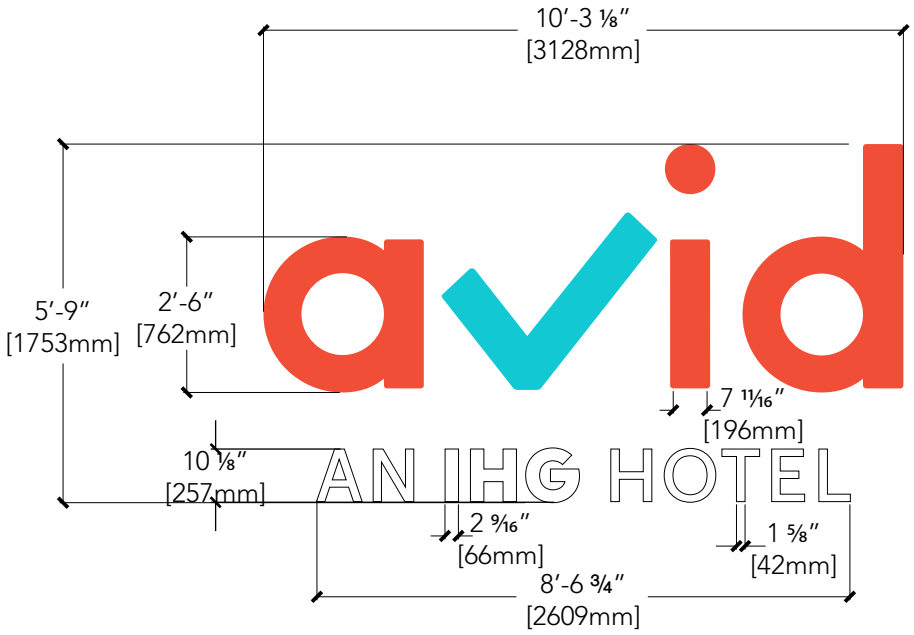

TOP VIEW
26′-3 5⁄16″
[8008mm]
2′-0″
[610mm]
3 9⁄16″
[91mm]
4′-1 5⁄8″
[1261mm]
CANDLEWOOD
SUITES
1′-2 15⁄16″
[380mm]
2 1⁄4″
[56mm]
FRONT VIEW
3″
[76mm]
EXISTING WALL
SIDE VIEW

NIGHT VIEW:

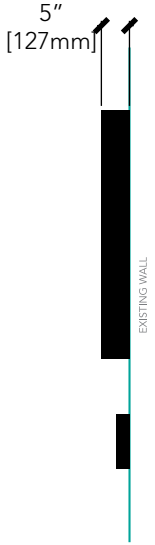
CANDLEWOOD
SUITES

East Elevation LTRs

AVID-LTR-028-IL-EX-069H-X, CS-20-CL-L-W

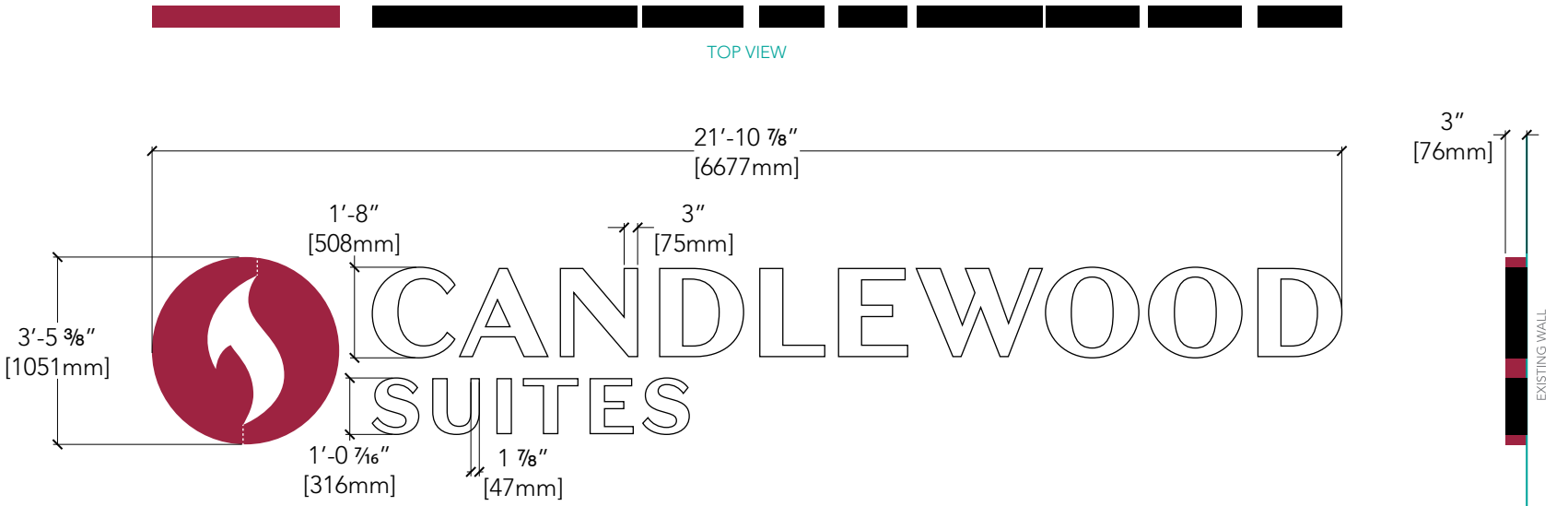


FRONT VIEW



SIDE VIEW

NIGHT VIEW:

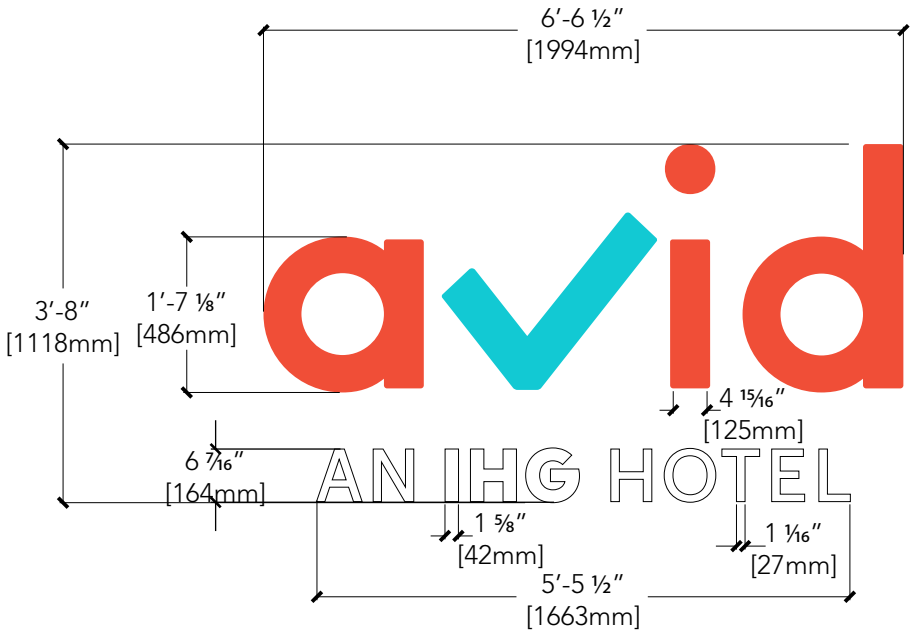

TOP VIEW
21′-10 7⁄8″
[6677mm]
1′-8″
[508mm]
3″
[75mm]
3′-5 3⁄8″
[1051mm]
CANDLEWOOD
SUITES
1′-0 7⁄16″
[316mm]
1 7⁄8″
[47mm]
FRONT VIEW
3″
[76mm]
EXISTING WALL
SIDE VIEW

NIGHT VIEW:

CANDLEWOOD
SUITES

West Elevation LTRs

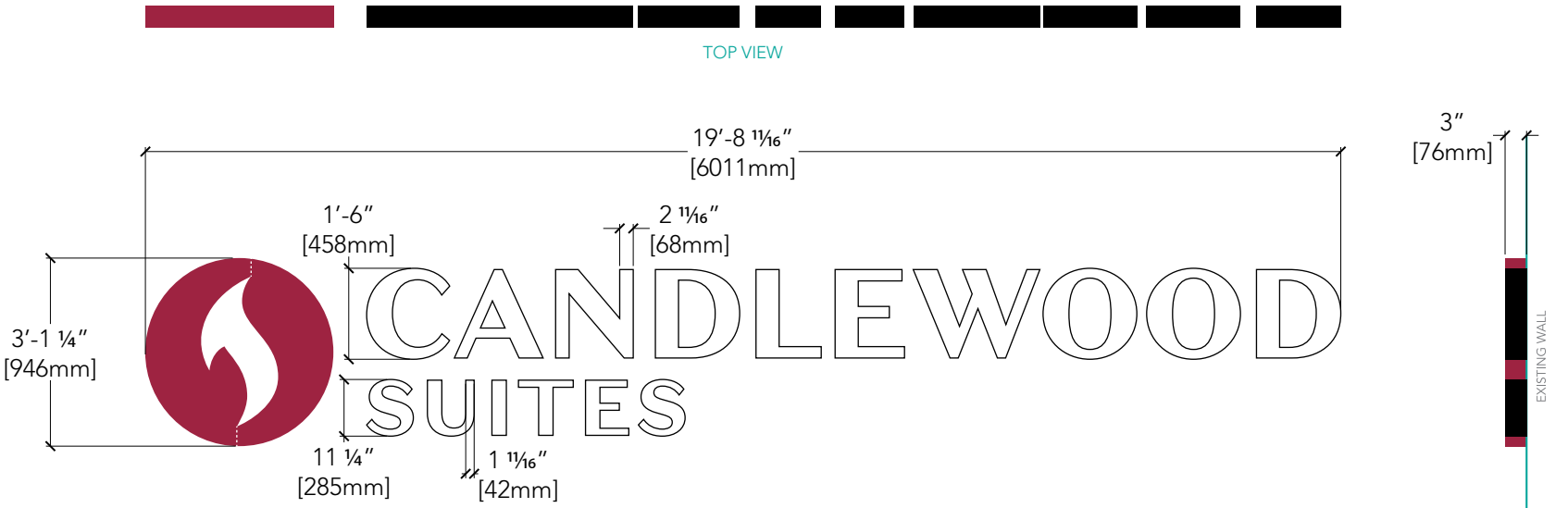
AVID-LTR-026-IL-EX-044H-X, CS-18-CL-L-W



FRONT VIEW

SIDE VIEW

NIGHT VIEW:


TOP VIEW
19′-8 11⁄16″
[6011mm]
1′-6″
[458mm]
2 11⁄16″
[68mm]
3′-1 1⁄4″
[946mm]
CANDLEWOOD
SUITES
11 1⁄4″
[285mm]
1 11⁄16″
[42mm]
FRONT VIEW
3″
[76mm]
EXISTING WALL
SIDE VIEW

NIGHT VIEW:

CANDLEWOOD
SUITES

DUAL BRAND PROTOTYPE
DESIGN GUIDELINE DRAWINGS
June 21, 2021

IHG®

HOTELS & RESORTS

THREE RAVINIA DRIVE
SUITE 100
ATLANTA, GA 30346

PROTOTYPE SET
NOT FOR CONSTRUCTION

avid® AN IHG® HOTEL

CANDLEWOOD SUITES AN IHG® HOTEL

DISCLAIMER

COPYRIGHT 2021 INTERCONTINENTAL HOTELS GROUP. ALL RIGHTS RESERVED.

CONFIDENTIAL AND PROPRIETARY. DO NOT MODIFY, DUPLICATE, REPRODUCE, DISCLOSE OR TRANSFER THESE MATERIALS WITHOUT THE EXPRESS WRITTEN PERMISSION OF INTERCONTINENTAL HOTELS GROUP.

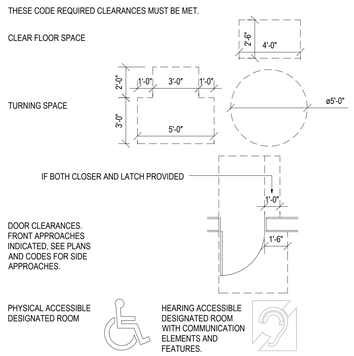
THIS IS A PROTOTYPE DESIGN ONLY. IT MAY NOT BE SUITABLE FOR A PARTICULAR SITE OR CERTAIN LOCAL CONDITIONS. INTERCONTINENTAL HOTELS GROUP IS NOT RESPONSIBLE FOR ADAPTATION OF THE DESIGN TO A PARTICULAR SITE, OR FOR COMPLIANCE OF THE DESIGN WITH APPLICABLE LAWS, REGULATIONS AND CODES.

THESE DRAWINGS ARE THE PROPERTY OF INTERCONTINENTAL HOTELS GROUP AND ARE PROVIDED FOR INFORMATION ONLY AND SHALL NOT BE USED FOR CONSTRUCTION, REPRODUCTION OR ANY OTHER UNAUTHORIZED USE. INTERCONTINENTAL HOTELS GROUP HEREBY DISCLAIMS ANY RESPONSIBILITY FROM RESULTS OBTAINED IN THE USE OR MODIFICATION OF THESE DOCUMENTS AND DOES NOT GUARANTEE THE ACCURACY OF THE INFORMATION HEREIN. RECIPIENT AGREES TO ASSUME ALL RISK ASSOCIATED HEREWITH, AND TO THE FULLEST EXTENT PERMITTED BY LAW TO HOLD HARMLESS AND INDEMNIFY INTERCONTINENTAL HOTELS GROUP FROM AND AGAINST ANY AND ALL CLAIMS, LIABILITIES, LOSSES, DAMAGE AND COST INCLUDING ATTORNEY'S FEES.

DRAWING INDEX

DRAWING NUMBER	DRAWING NAME
GENERAL	
G0.00	DRAWING LIST, GENERAL PROJECT INFORMATION & FACILITY AREA PROGRAM
ARCHITECTURE	
A1.00	SITE PLAN
A2.00	LEVEL 01 & 02 - FLOOR PLANS
A2.01	LEVEL 03 & 04 - FLOOR PLANS
A3.00	ENLARGED PLAN - LOBBY & BOH
A3.01	ENLARGED PLAN - ELEVATOR LOBBY & GUEST LAUNDRY
A4.00	BUILDING ELEVATIONS - EAST & SOUTH
A4.01	BUILDING ELEVATIONS - WEST & NORTH

ACCESSIBILITY SYMBOLOGY LEGEND



DRAWING NUMBERS LEGEND

A0.01

DISCIPLINE
- T = TITLE SHEET & INDEX
- G = GENERAL
- B = GEOTECHNICAL / ENVIRONMENTAL
- D = DEMOLITION SERIES
- C = CIVIL
- L = LANDSCAPE
- A = ARCHITECTURAL / INTERIORS
- I = INTERIORS
- S = STRUCTURAL
- F = FIRE PROTECTION
- P = PLUMBING
- M = MECHANICAL / HVAC
- E = ELECTRICAL
- X = OTHER

VIEW TYPE
- 0 = GENERAL / SCHEDULES
- 1 = SITE PLAN & DETAILS
- 2 = OVERALL FLOOR PLANS
- 3 = ENLARGED PLANS
- 4 = EXTERIOR ELEVATIONS
- 5 = INTERIOR ELEVATIONS & CASEWORK
- 6 = DETAILS

SHEET SEQUENCE

GROSS BUILDING AREA	
LEVEL	AREA
LEVEL 01	13,618 SF
LEVEL 02	12,799 SF
LEVEL 03	12,799 SF
LEVEL 04	12,799 SF
TOTAL GROSS BUILDING AREA	**52,015 SF**

ACCESSIBILITY MATRIX FOR 107 ROOM PROTOTYPE *		
REQUIREMENTS	**REQUIRED**	**PROVIDED**
GUESTROOM WITH COMMUNICATION FEATURES	7 (AVID) / 7 (CANDLEWOOD SUITES)	14
GUESTROOM WITH MOBILITY FEATURES	4 (AVID) / 4 (CANDLEWOOD SUITES)	8

* ACCESSIBILITY REQUIREMENTS MUST COMPLY WITH LOCAL LAWS AND CODES. ACCESSIBILITY GUESTROOM QUANTITY, TYPE, AND DISTRIBUTION MUST BE BASED UPON THE BUILDING AS ULTIMATELY DESIGNED. IT IS THE RESPONSIBILITY OF THE IMPLEMENTATION ARCHITECT TO DETERMINE ACCESSIBLE AND HEARING-IMPAIRED ROOM COUNTS FOR A GIVEN PROJECT BASED ON ALL APPLICABLE FEDERAL, STATE & LOCAL ACCESSIBILITY REQUIREMENTS.

GUESTROOM COUNT: AVID WING

ROOM NAME	COUNT
Level 1	
KING	6
KING ADA	0
QQ	4
QQ ADA	1
Level 2	
KING	8
KING ADA	1
QQ	6
QQ ADA	0
Level 3	
KING	8
KING ADA	1
QQ	6
QQ ADA	0
Level 4	
KING	8
KING ADA	1
QQ	6
QQ ADA	0
GUESTROOM TOTAL	56

GUESTROOM COUNT: CANDLEWOOD SUITES WING

ROOM NAME	COUNT
Level 1	
STUDIO KING	3
STUDIO KING ADA	1
STUDIO QQ	3
STUDIO QQ ADA	0
ONE BEDROOM KING	0
ONE BEDROOM KING ADA	0
ONE BEDROOM QQ	0
ONE BEDROOM QQ ADA	0
Level 2	
STUDIO KING	8
STUDIO KING ADA	1
STUDIO QQ	4
STUDIO QQ ADA	0
ONE BEDROOM KING	1
ONE BEDROOM KING ADA	0
ONE BEDROOM QQ	0
ONE BEDROOM QQ ADA	0
Level 3	
STUDIO KING	9
STUDIO KING ADA	1
STUDIO QQ	4
STUDIO QQ ADA	0
ONE BEDROOM KING	0
ONE BEDROOM KING ADA	0
ONE BEDROOM QQ	0
ONE BEDROOM QQ ADA	1
Level 4	
STUDIO KING	9
STUDIO KING ADA	0
STUDIO QQ	5
STUDIO QQ ADA	0
ONE BEDROOM KING	1
ONE BEDROOM KING ADA	0
ONE BEDROOM QQ	0
ONE BEDROOM QQ ADA	0
GUESTROOM TOTAL	51

TOTAL GUESTROOM COUNT	107

BUILDING PROGRAMMING

BUILDING AREA	PROPOSED QTY	PROPOSED AREA
ADMINISTRATION		
GM OFFICE	1	89 SF
WORK AREA	1	122 SF
STORAGE / MECH CLOSET	1	22 SF
STORAGE CLOSET - LEVEL 03	1	26 SF
LENDING LOCKER	1	9 SF
BOH STORAGE	1	83 SF
TOTAL		351 SF
BUILDING SERVICES		
A/V / DATA ROOM	1	48 SF
MAIN ELECTRICAL / MECHANICAL ROOM	1	344 SF
MAINTENANCE	1	108 SF
ELECTRICAL CLOSETS	7	397 SF
TOTAL		897 SF
CIRCULATION SUPPORT		
CORRIDOR (GROUND LEVEL)	1	967 SF
CORRIDOR (UPPER LEVELS)	3	3931 SF
ENTRY VESTIBULE	1	114 SF
STAIR A	4	979 SF
STAIR B	4	900 SF
TOTAL		6891 SF
EMPLOYEE AREAS		
EMPLOYEE BREAKROOM	1	144 SF
EMPLOYEE RESTROOM	1	45 SF
TOTAL		189 SF
GUEST SUPPORT		
ELEVATOR SHAFT	4	133 SF
ELEVATOR LOBBY	1	214 SF
ELEVATOR LOBBY (UPPER FLOORS)	3	201 SF
TOTAL		548 SF
GUESTROOM - CANDLEWOOD SUITES		
1 BEDROOM KING	2	1140 SF
1 BEDROOM QUEEN QUEEN ADA	1	541 SF
STUDIO KING	29	8986 SF
STUDIO KING ADA	3	1067 SF
STUDIO QUEEN QUEEN	16	5319 SF
TOTAL		17053 SF
GUESTROOM - AVID		
KING	30	6717 SF
KING ADA	3	1048 SF
QUEEN QUEEN	22	6242 SF
QUEEN QUEEN ADA	1	374 SF
TOTAL		14381 SF
HOUSEKEEPING		
HOUSEKEEPING ROOM	3	539 SF
TOTAL		539 SF
LAUNDRY		
LAUNDRY EQUIPMENT	1	64 SF
LAUNDRY	1	433 SF
TOTAL		497 SF
PUBLIC SPACE		
FITNESS	1	453 SF
GAZEBO	1	263 SF
GUEST LAUNDRY	1	228 SF
LOBBY	1	2440 SF
TOTAL		3384 SF
PUBLIC SUPPORT		
MARKET	1	150 SF
PANTRY	1	279 SF
CHECK-IN	1	150 SF
ELEVATOR LOBBY (GROUND FLOOR)	1	214 SF
PUBLIC RESTROOMS	2	105 SF
TOTAL		898 SF
TOTAL NET BUILDING AREA		45338 SF

AREAS PROVIDED ARE ALL NET SQ FT

PROGRAMMING LEGEND

- GUESTROOM SUPPORT
- GUESTROOMS
- PUBLIC SPACE
- PUBLIC SUPPORT

PURPOSE OF THESE DRAWINGS.

THESE DRAWINGS ARE PREPARED FOR THE USE OF THE OWNER/FRANCHISEE AND THEIR ARCHITECT/ENGINEER AS A REPRESENTATION OF THE DESIGN CRITERIA FOR THE DEVELOPMENT OF A 4-STORY 107 GUESTROOM DUAL-BRAND HOTEL.

THESE DRAWINGS PROVIDE GUIDEANCE FOR INTEGRATING THE TWO PROTOTYPE DESIGNS INTO ONE FOOTPRINT AND ARE TO BE USED IN CONJUNCTION WITH THE PUBLISHED PROTOTYPE DRAWINGS FOR BOTH AVID HOTELS AND CANDLEWOOD SUITES BRANDS. REFER TO THE CURRENT PUBLISHED PROTOTYPE DRAWING SETS FOR BOTH BRANDS FOR ALL DETAILS NOT SPECIFICALLY ADDRESSED WITHIN THIS SUPPLEMENT DESIGN GUIDELINE DRAWINGS. UTILIZE THE CURRENT PUBLISHED PROTOTYPE REVIT FILES FOR BOTH BRANDS AS THE BASIS FOR DEVELOPMENT OF THIS DUAL-BRAND PROTOTYPE.

THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION , BUT ONLY AS A GUIDE FOR THE DESIGN PROFESSIONALS AS THEY PREPARE THE DOCUMENTS.

IN THE EVENT OF A DISCREPANCY BETWEEN THESE DRAWINGS AND THE CURRENT PROTOTYPE BRAND STANDARDS, THE BRAND STANDARDS SHALL TAKE PRECEDENCE.

THE FRANCHISEE'S CONSULTING ARCHITECT AND ENGINEERS SHALL BE RESPONSIBLE FOR VERIFYING AND COMPLYING WITH ALL APPLICABLE LAWS, COVENANTS, CODES, REQUIREMENTS OF FEDERAL, STATE AND LOCAL ACCESSIBILITY REGULATIONS, INCLUDING THE AMERICANS WITH DISABILITIES ACT(ADA).

ADDITIONALLY, IHG BRAND SAFETY STANDARDS SHALL TAKE PRECEDENCE OVER LESS RESTRICTIVE CODES.

ROOM COUNT.

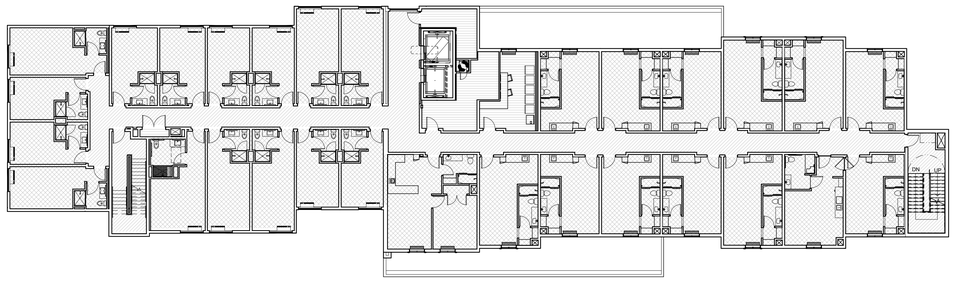
QUANTITY OF KING TO DOUBLE QUEEN GUESTROOMS MAY VARY BASED ON FRANCHISEE REQUIREMENTS.

ACCESSIBLE GUESTROOM DISTRIBUTION MUST COMPLY WITH CURRENT APPLICABLE ACCESSIBILITY CODES.

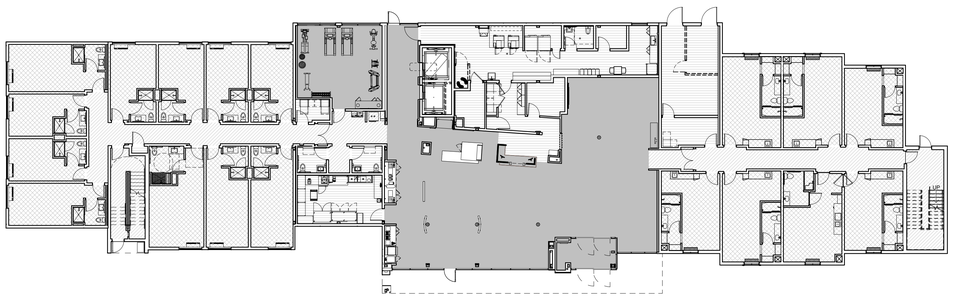
DOCUMENTATION SET.

THESE DRAWINGS ARE PART OF THE PROTOTYPE DOCUMENTS WHICH ALSO INCLUDE, FF&E SPECIFICATIONS, IHG SUPPLEMENTAL DOCUMENTS AND ANY OTHER REFERENCES WITHIN THESE DOCUMENTS.

REFER TO THE FF&E SPECIFICATIONS FOR BOTH AVID HOTELS AND CANDLEWOOD SUITES FOR ANY FF&E KEY MARKS IDENTIFIED IN THE DRAWINGS.



TYPICAL FLOOR DIAGRAM
SCALE: 1/16" = 1'-0"



FIRST FLOOR DIAGRAM
SCALE: 1/16" = 1'-0"

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAIMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

Project Number

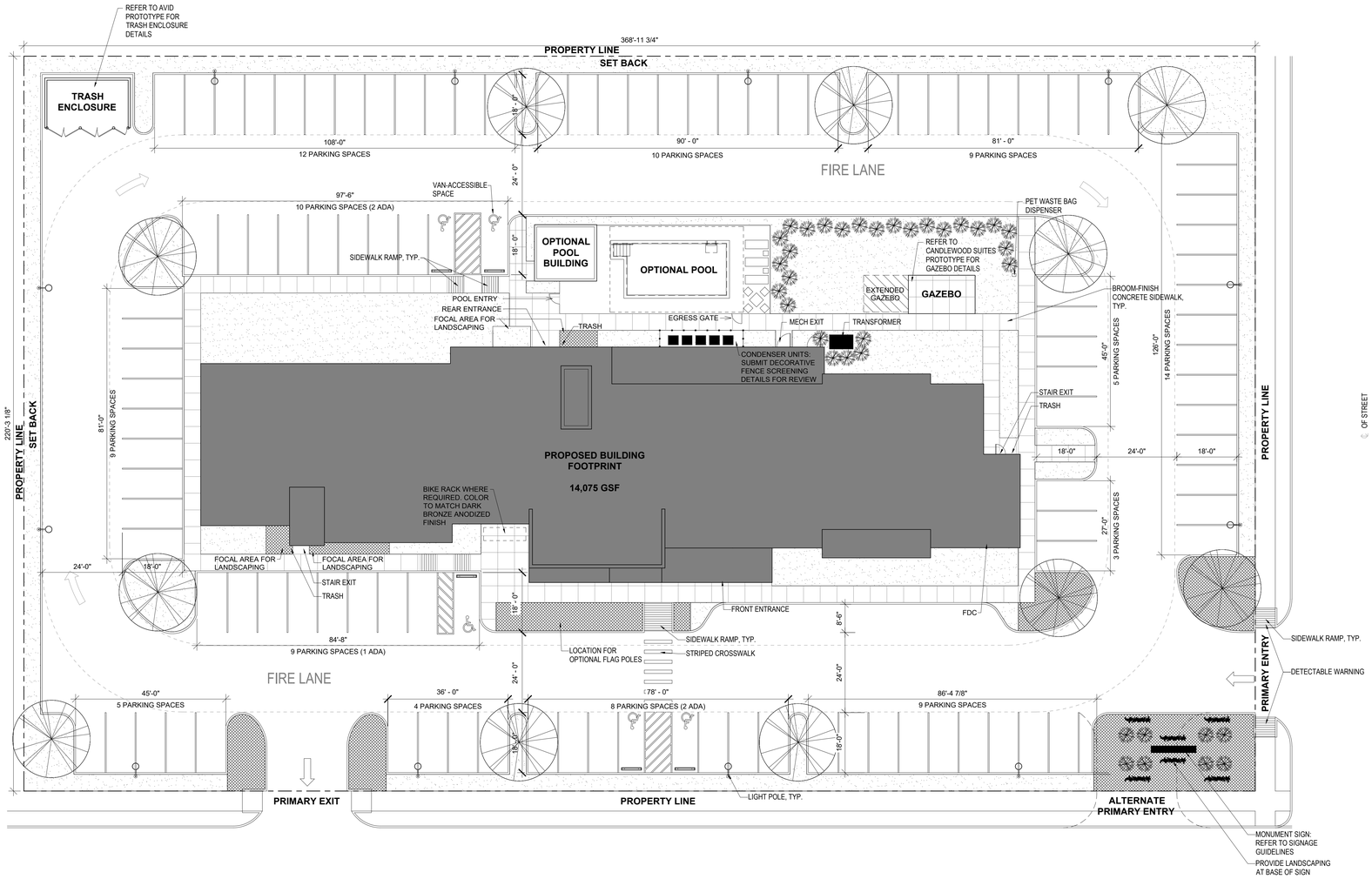
Description
DRAWING INDEX, GENERAL PROJECT INFORMATION & FACILITY AREA PROGRAM

Scale
AS INDICATED

G0.00

© 2021 IHG

NOTE:
REFER TO AVID PROTOTYPE DRAWINGS FOR SITE DETAILS, EXCEPT WHERE OTHERWISE NOTED.



CONCEPTUAL SITE INFORMATION

HOTEL ROOMS: 107

TOTAL ACREAGE: +/- 1.86 ACRES

TOTAL PARKING SPACES PROVIDED: 107

ADA PARKING SPACES: 5 (INCLUDING 1 "VAN ACCESSIBLE")

CALCULATION BASED ON 1.0 PARKING RATIO PER ROOM FOR PROTOTYPE
(COORDINATE WITH LOCAL JURISDICTION FOR REQUIRED RATIO)

SITE PLAN
SCALE: 1/16" = 1'-0"

01

SHEET NOTES

GENERAL NOTES

A ALL SIDEWALKS TO BE 5'-0" IN WIDTH UNLESS NOTED OTHERWISE.
B RAMPS ARE NOT TO EXCEED 1:12 SLOPE.
C AN ACCESSIBLE ROUTE FROM PUBLIC TRANSPORTATION STOPS, PUBLIC STREETS AND SIDEWALKS, ACCESSIBLE PARKING SPACES AND PASSENGER LOADING ZONES TO AN ACCESSIBLE BUILDING ENTRANCE SHALL BE PROVIDED.
D ACCESSIBLE ENTRANCES AND PARKING SPACES SHALL BE IDENTIFIED WITH A SIGN SHOWING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
E INACCESSIBLE ENTRANCES SHALL BE PROVIDED WITH SIGNAGE DIRECTING PATRONS TO ACCESSIBLE ENTRANCES.
E PARKING SHALL BE SLOPED A MINIMUM OF 2% FOR SITE DRAINAGE. THE MAXIMUM SLOPE PERMITTED AT ACCESSIBLE PARKING SPACES AND ISLES AND ACCESSIBLE PATHS IS 2% IN ALL DIRECTIONS.
G CURB RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 AND SHALL BE A MINIMUM OF 36" WIDE.
H LOCATE ALL METERS OUT OF DIRECT VIEW OF GUESTS.
J. HVAC UNITS AND OTHER UTILITY EQUIPMENT TO BE SCREENED FROM VIEW WITH LANDSCAPE OR SCREEN WALLS. EACH IN ACCORDANCE WITH LOCAL CODES, ORDINANCES AND PROTOTYPE STANDARDS.
K GENERAL PARKING AND PEDESTRIAN AREAS SHALL HAVE MINIMUM LIGHTING OF1 FOOT CANDLE.
L ALL DOWNSPOUTS SHALL BE TIED TO THE STORM SEWER SYSTEM.
M ALL SIGNAGE TO CONFORM TO ALL LOCAL CODES, ORDINANCES AND PROTOTYPE STANDARDS.
N ALL FENCING ON PROPERTY MUST COORDINATE WITH THE EXTERIOR DESIGN OF THE HOTEL. CHAIN-LINK FENCING IS NOT ALLOWED.
O A MIN. OF15% OF HOTEL SITE MUST BE DEDICATED TO LANDSCAPING. PROVIDE A VARIETY OF LOW MAINTENANCE TREES, SHRUBS, SEASONAL ANNUALS AND GRASSES AT ALL ENTRANCE DRIVES, PARKING LOT ISLANDS, COURTYARDS AND BETWEEN NEIGHBORING PROPERTIES AND PUBLIC STREETS.
P AN IRRIGATION SYSTEM IS REQUIRED FOR ALL LANDSCAPING PLANTS.
Q PROVIDE LANDSCAPE BARRIER, DECORATIVE FENCE, OR OTHER DEVICE TO SCREEN EXCESSIVE NOISE OR UNDESIRABLE VIEWS OF NEIGHBORING PROPERTIES.
R LOCATE ALL ELECTRICAL EQUIPMENT MIN. 15 FT. AWAY FROM PUBLIC ENTRANCES.

SITE NOTES

1. THE SITE LAYOUT IS CONCEPTUAL AND BASED ON A HYPOTHETICAL SITE. IN THE PLACEMENT OF THIS PROTOTYPE BUILDING ON THE DESIRED SITE, THE BUILDING CAN BE MIRRORED HORIZONTALLY OR VERTICALLY AS NEEDED BASED ON SITE ORIENTATION AND PROXIMITY TO ACCESS ROADS.
2. ALL SITE REQUIREMENTS ARE ASSUMED.
3. OWNER SHALL CONFIRM ALL SITE SETBACKS, PARKING & LOADING REQUIREMENTS AND CURB CUTS PER THE LOCAL CODE OF ORDINANCES WHEN FINALIZING SITES FOR PROTOTYPE IMPLEMENTATION.
4. PROTOTYPE DRAWING CONTENT DOES NOT INCORPORATE CIVIL AND LANDSCAPING CONSIDERATIONS INTO THIS PACKAGE. IT IS THE RESPONSIBILITY OF THE IMPLEMENTATION ARCHITECT TO CONFIRM INCOMING AND OUTGOING SERVICES INCLUDING BUT NOT LIMITED TO ALL CIVIL, PLUMBING AND TECHNOLOGY TIE-INS.
5. FIRE DEPARTMENT ACCESS AND ROUTING IS SHOWN FOR REFERENCE AND SHOULD BE VERIFIED WITH REQUIREMENTS OF THE SITE'S LOCAL JURISDICTION. THE SAME APPLIES FOR LOCAL HYDRANTS AND FIRE DEPARTMENT CONNECTIONS.
6. SITE AREA ASSUMES NO SITE DETENTION - OWNER SHALL CONFIRM REQUIREMENTS.

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

Project Number

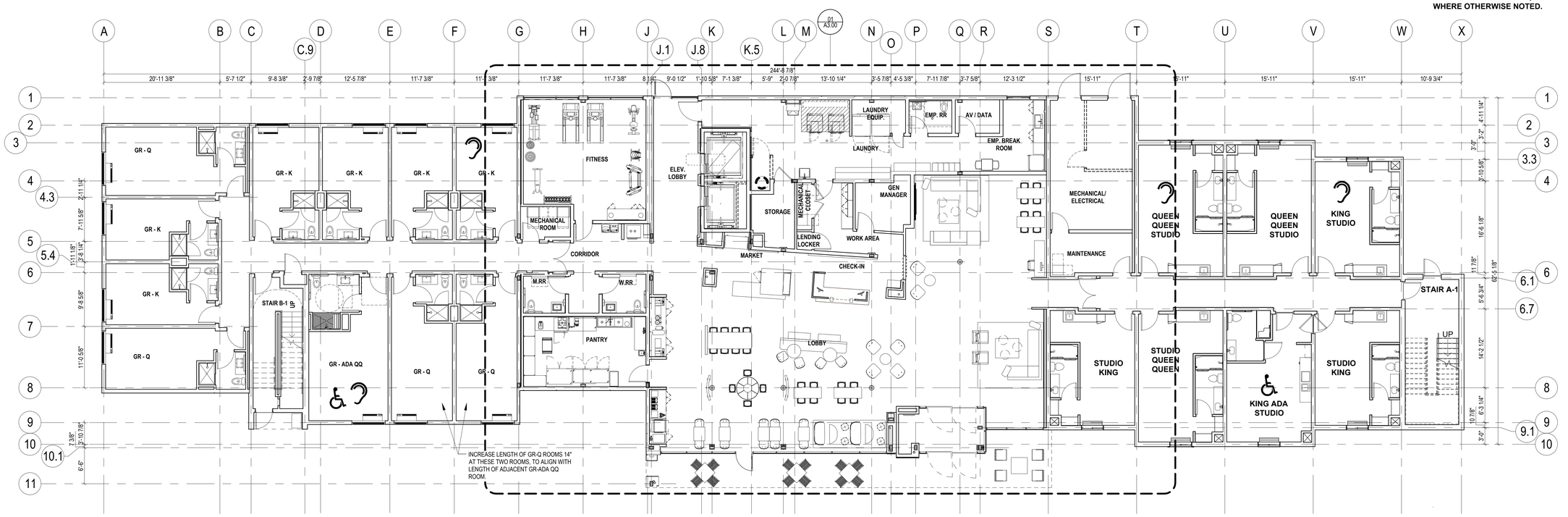
Description
SITE PLAN

Scale
AS INDICATED

A1.00

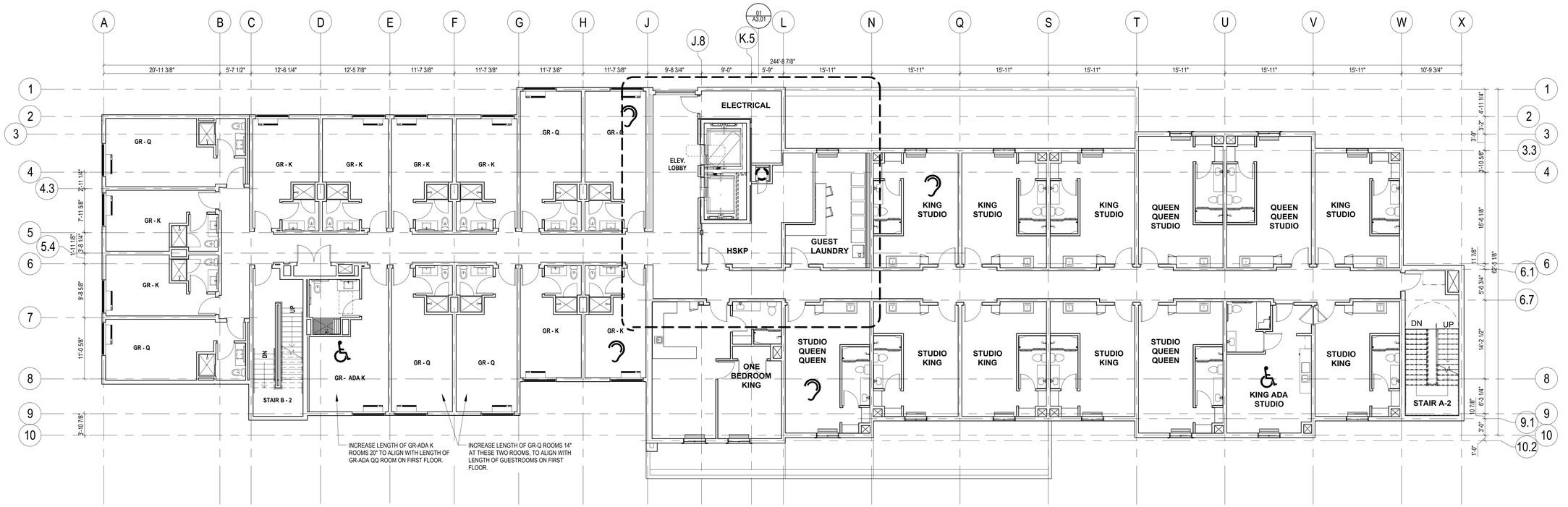
© 2021 IHG

NOTE:
REFER TO AVID PROTOTYPE DRAWINGS FOR DETAILS, EXCEPT WHERE OTHERWISE NOTED.



LEVEL 01 - FLOOR PLAN
SCALE: 1/8" = 1'-0"

01



LEVEL 02 - FLOOR PLAN
SCALE: 1/8" = 1'-0"

02

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

Project Number

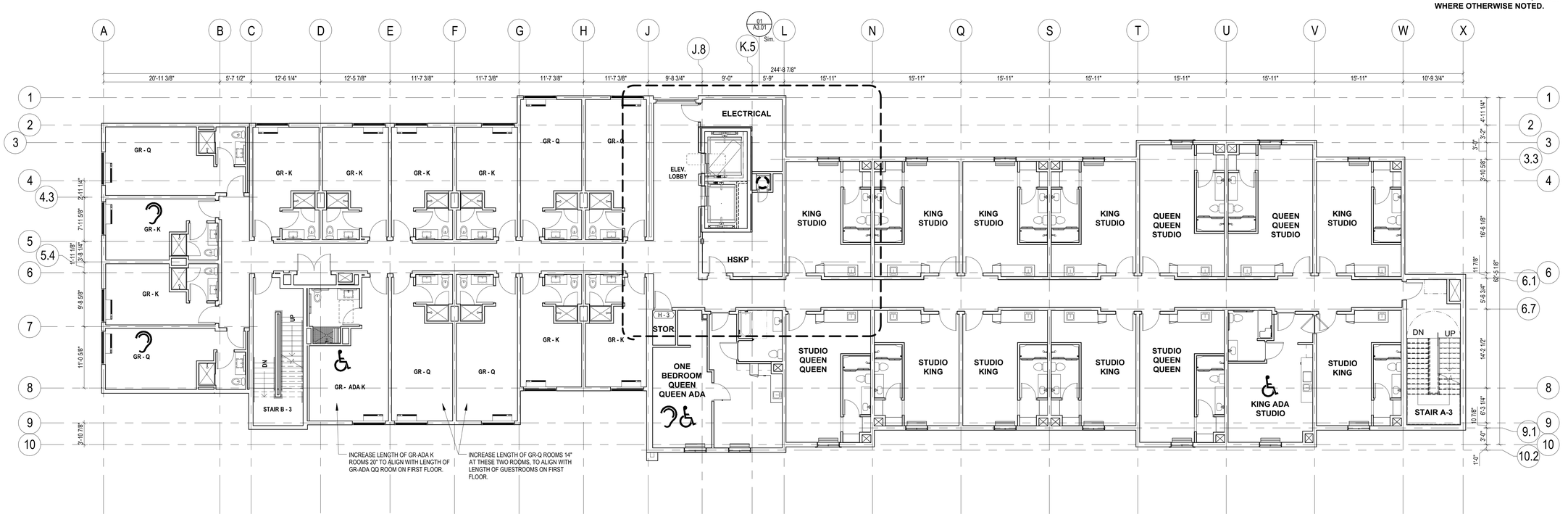
Description
LEVEL 01 & 02 FLOOR PLANS

Scale
AS INDICATED

A2.00

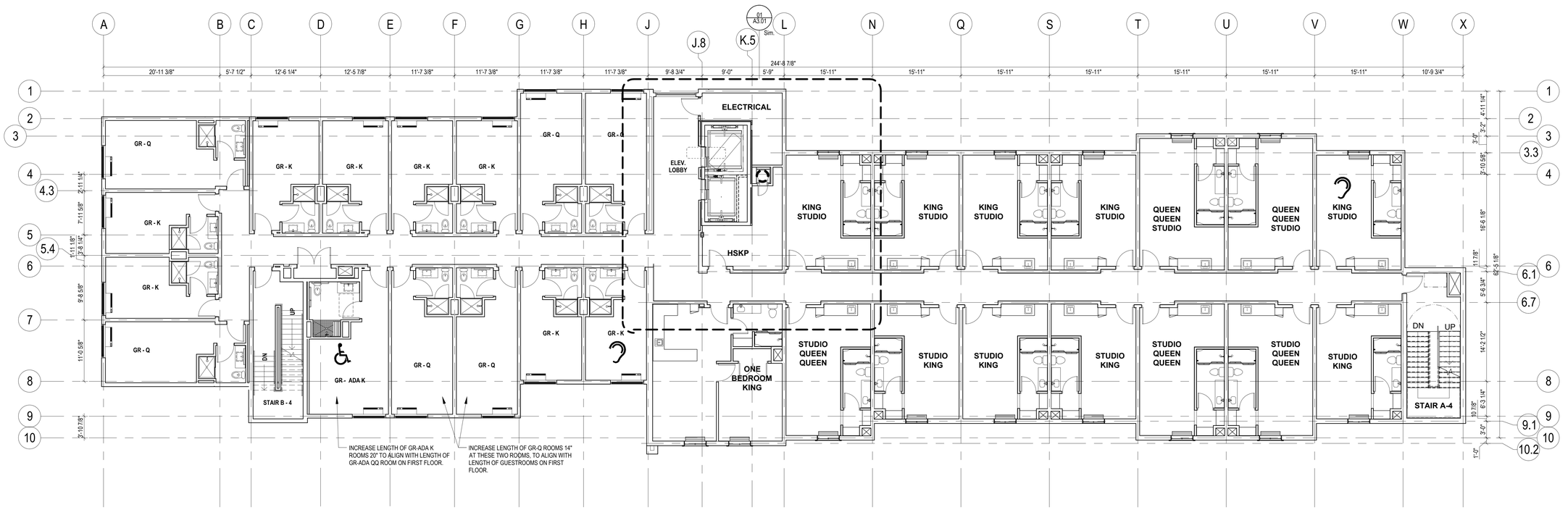
© 2021 IHG

NOTE:
REFER TO AVID PROTOTYPE DRAWINGS FOR DETAILS, EXCEPT WHERE OTHERWISE NOTED.



LEVEL 03 - FLOOR PLAN
SCALE: 1/8" = 1'-0"

01



LEVEL 04 - FLOOR PLAN
SCALE: 1/8" = 1'-0"

02

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

Project Number

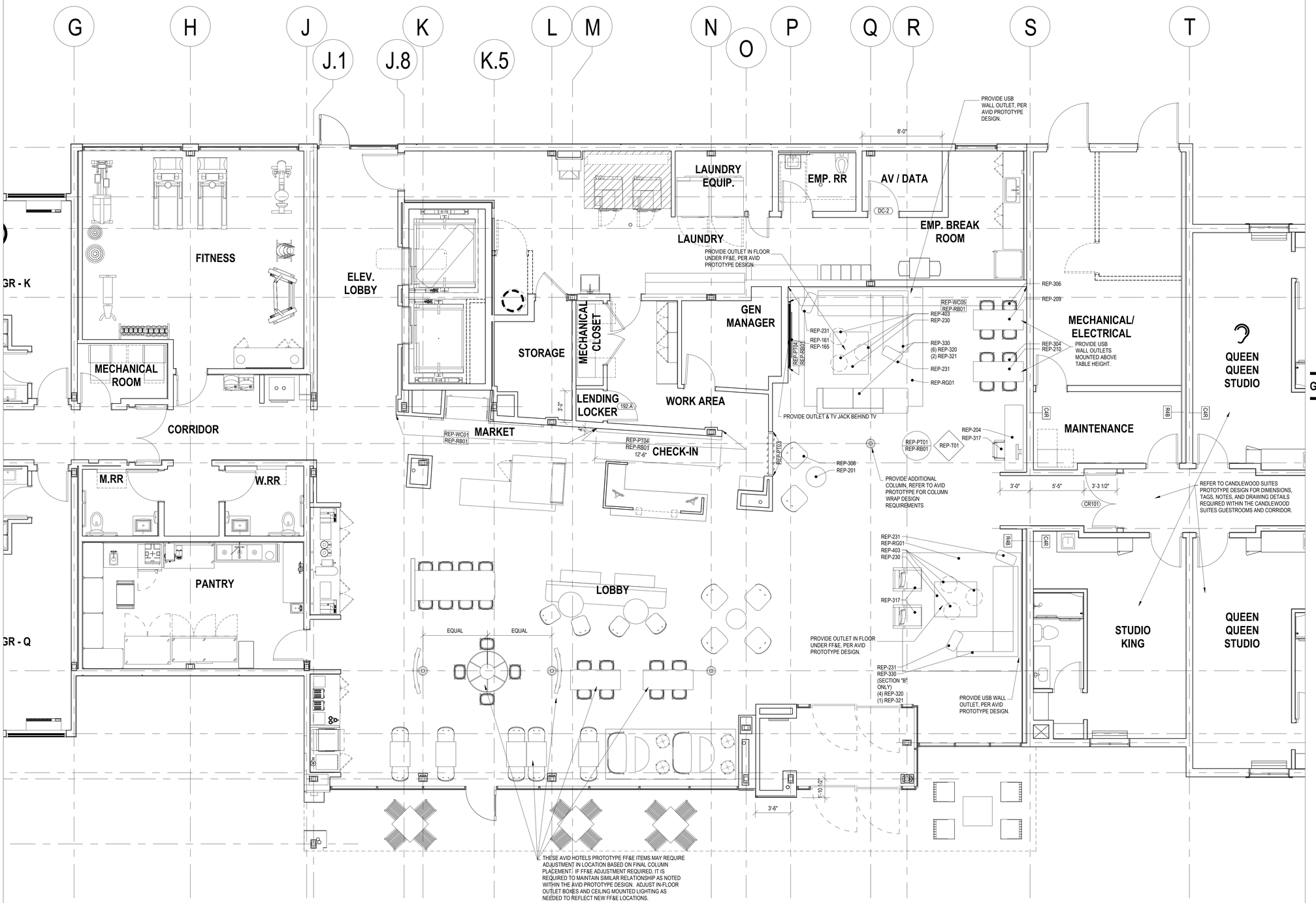
Description
LEVEL 03 & 04 FLOOR PLANS

Scale
AS INDICATED

A2.01

© 2021 IHG

NOTE:
REFER TO AVID HOTELS PROTOTYPE DRAWINGS FOR DIMENSIONS, NOTES, TAGS, AND DRAWING DETAILS. DESIGN TO MATCH AVID PROTOTYPE EXCEPT WHERE OTHERWISE NOTED.



ENLARGED LOBBY AND BOH PLAN

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

01

SHEET NOTES

GENERAL NOTES

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

Project Number

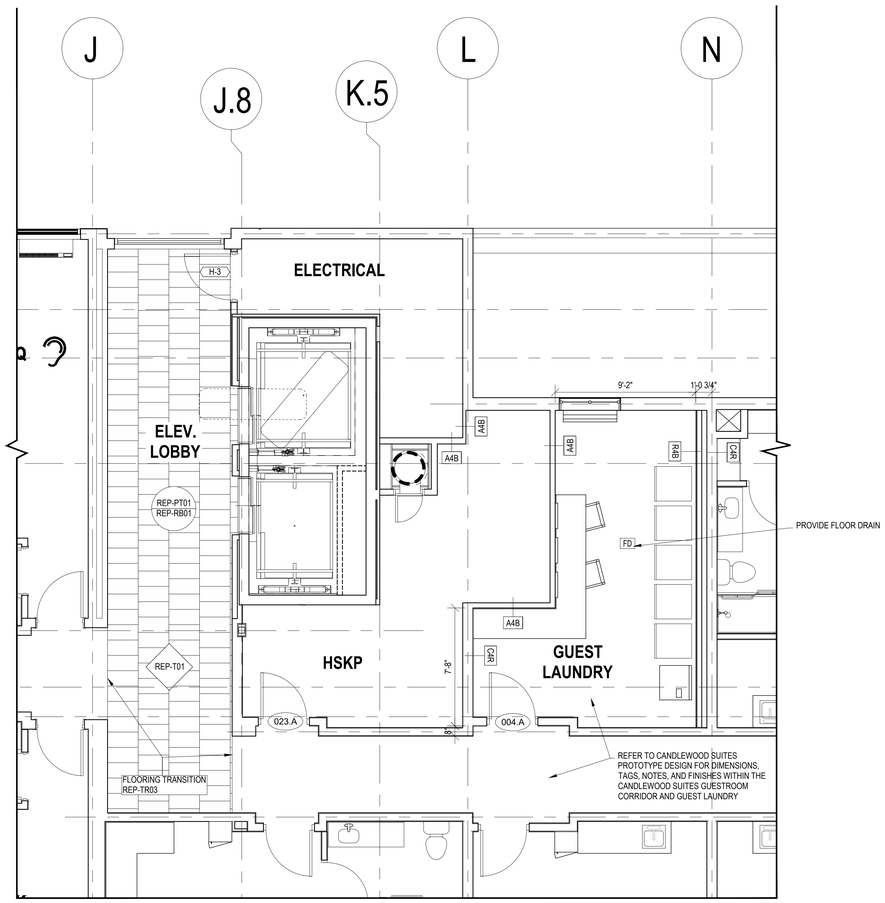
Description
ENLARGED PLAN - LOBBY & BOH

Scale
As indicated

A3.00

© 2021 IHG

NOTE:
REFER TO AVID HOTELS PROTOTYPE DRAWINGS FOR DIMENSIONS, NOTES, TAGS, AND DRAWING DETAILS. DESIGN TO MATCH AVID PROTOTYPE EXCEPT WHERE OTHERWISE NOTED.



ENLARGED ELEVATOR LOBBY & GUEST LAUNDRY PLAN 01
SCALE: 1/4" = 1'-0"

SHEET NOTES

GENERAL NOTES

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

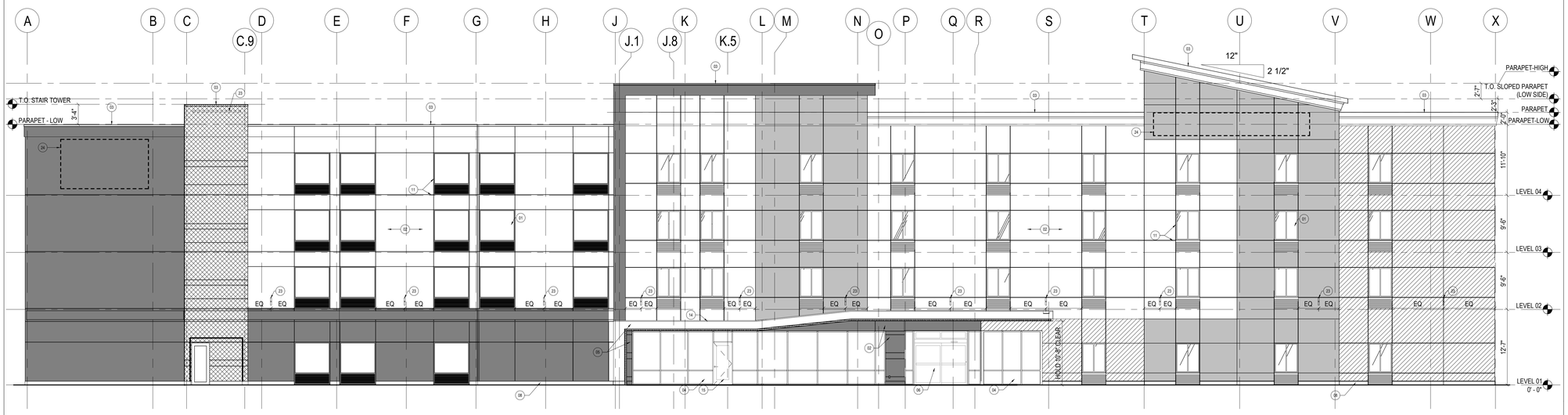
Project Number

Description
ENLARGED PLAN - ELEVATOR LOBBY & GUEST LAUNDRY

Scale
As indicated

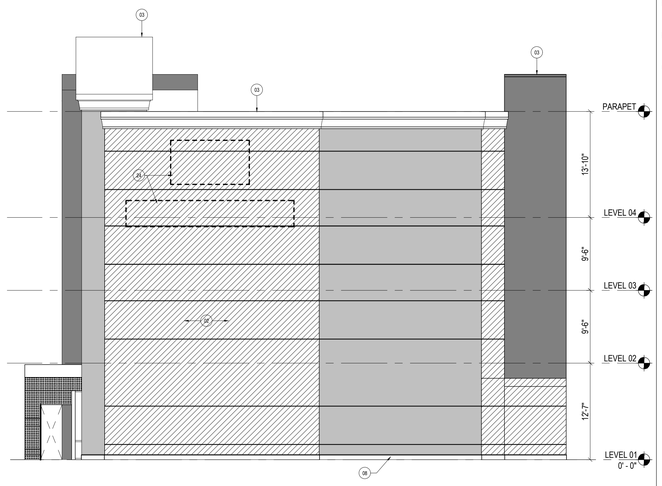
A3.01

© 2021 IHG



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

02



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

01

SHEET NOTES

01 INTEGRATED EXTERIOR WINDOW AND PTAC LOUVER
02 EXTERIOR CLADDING WITH WATERPROOFING SYSTEM
03 METAL COPING - COLOR TO MATCH ADJACENT WALL FINISH
04 EXTERIOR STOREFRONT WINDOWS
05 EXTERIOR CLADDING SYSTEM BENEATH CANOPY AND ADJACENT WING WALLS
06 SINGLE SLIDING GLASS DOOR
07 ELEVATOR OVERRUN BEYOND
08 8" CAST STONE BASE
09 EXTERIOR ALUMINUM WINDOW, TYP.
10 PAINT DOOR AND FRAME TO MATCH ADJACENT FINISH
11 3/4" CONTROL JOINT
12 3/4" REVEAL (TYP.)
14 ENTRANCE CANOPY WITH TPO ROOF
15 STOREFRONT DOOR
17 3'-0"X3'-0" HOT WATER TANK INTAKE EXHAUST
18 LAUNDRY EXHAUST, COORDINATE WITH MANUFACTURER FOR LOUVER SIZES AND LOCATIONS - ALIGN EDGES OF LOUVER WITH WINDOW ABOVE IF FEASIBLE
20 PREFABRICATED CANOPY.
21 SCUPPER, PAINTED TO MATCH ADJACENT WALL
23 EXTERIOR LIGHT FIXTURE. REF: ELECT. AND LIGHTING DWGS.
24 LOCATION FOR BUILDING SIGNAGE. PROVIDE ELECTRICAL SERVICE TO LOCATIONS WHERE SIGNAGE TO BE INSTALLED. REFER TO IHG SIGNAGE GUIDELINES FOR MORE INFORMATION.

GENERAL NOTES

A. SEE IHG SUPPLEMENTAL EXTERIOR FINISHES DOCUMENT FOR INFORMATION ON MATERIALS, SYSTEMS, AND COLORS.
B. TEMPERED GLAZING TO BE PROVIDED AS REQUIRED BY LOCAL BUILDING CODES.
C. COORDINATE PLACEMENT OF ALL LOUVERS, VENTS, AND OTHER EXTERIOR ELEMENTS WITH LOCATIONS OF SCORE JOINTS (TYP.).
D. ALL CONSTRUCTION IS INTENDED TO BE IN CONFORMANCE WITH FEDERAL & STATE LAWS, CURRENT LOCAL ORDINANCES & BUILDING CODES, AND ACCESSIBILITY CODES.
E. AUTOMATIC FIRE SPRINKLER SYSTEM MUST BE REVIEWED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
F. FIRE ALARM SYSTEM IS REQUIRED. SYSTEM MUST BE REVIEWED AND APPROVED BY THE FIRE DEPARTMENT.
G. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH MANUFACTURER ON FIXTURES, EQUIPMENT SUPPLIED, PRIOR TO CONSTRUCTION.

MATERIAL LEGEND

EXTERIOR CLADDING SYSTEM - B1
EXTERIOR CLADDING SYSTEM - B2
EXTERIOR CLADDING SYSTEM - B3
EXTERIOR CLADDING SYSTEM - EC-02
EXTERIOR CLADDING SYSTEM - EC-03
EXTERIOR CLADDING SYSTEM - EC-04

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

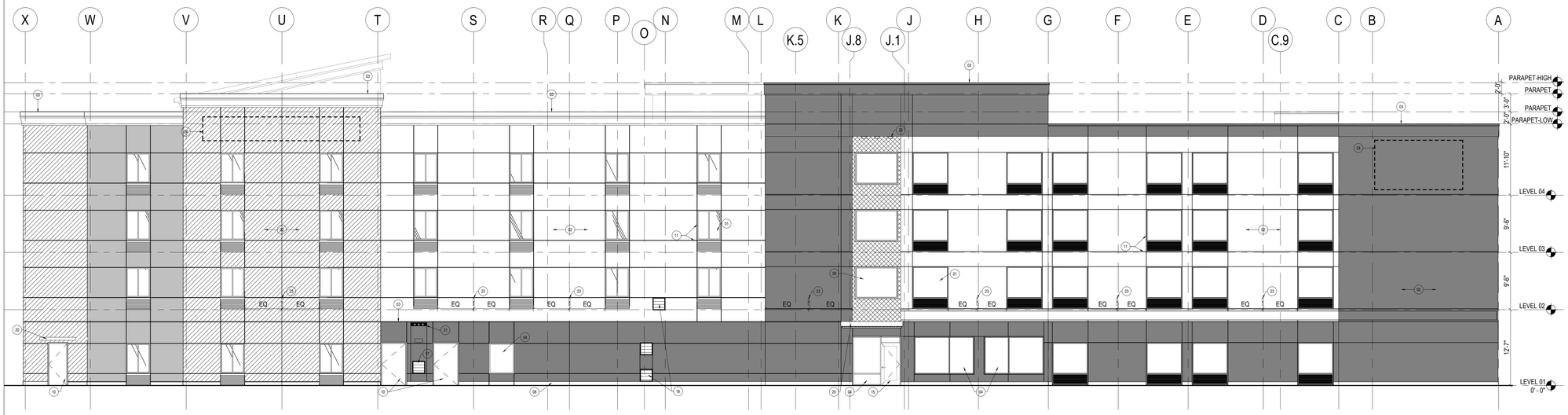
Project Number

Description
BUILDING ELEVATIONS - EAST & SOUTH

Scale
AS INDICATED

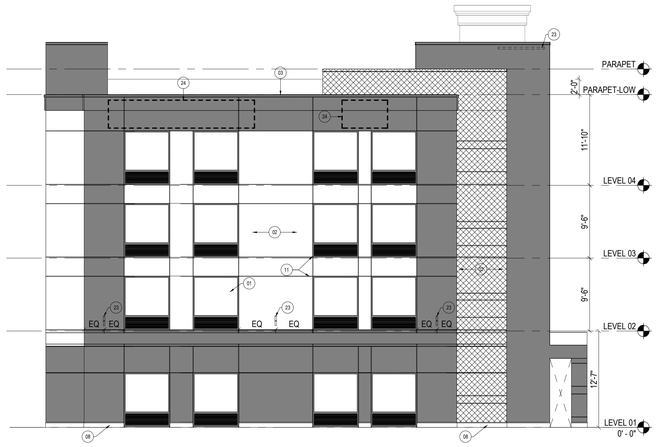
A4.00

© 2021 IHG



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

02



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

01

SHEET NOTES

01 INTEGRATED EXTERIOR WINDOW AND PTAC LOUVER
02 EXTERIOR CLADDING WITH WATERPROOFING SYSTEM
03 METAL COPING - COLOR TO MATCH ADJACENT WALL FINISH
04 EXTERIOR STOREFRONT WINDOWS
05 EXTERIOR CLADDING SYSTEM BENEATH CANOPY AND ADJACENT WING WALLS
06 SINGLE SLIDING GLASS DOOR
07 ELEVATOR OVERRUN BEYOND
08 8" CAST STONE BASE
09 EXTERIOR ALUMINUM WINDOW, TYP.
10 PAINT DOOR AND FRAME TO MATCH ADJACENT FINISH
11 3/4" CONTROL JOINT
12 3/4" REVEAL (TYP.)
14 ENTRANCE CANOPY WITH TPO ROOF
15 STOREFRONT DOOR
17 3'-0"X3'-0" HOT WATER TANK INTAKE EXHAUST
18 LAUNDRY EXHAUST, COORDINATE WITH MANUFACTURER FOR LOUVER SIZES AND LOCATIONS
20 PREFABRICATED CANOPY.
21 SCUPPER, PAINTED TO MATCH ADJACENT WALL
23 EXTERIOR LIGHT FIXTURE. REF: ELECT. AND LIGHTING DWGS.
24 LOCATION FOR BUILDING SIGNAGE. PROVIDE ELECTRICAL SERVICE TO LOCATIONS WHERE SIGNAGE TO BE INSTALLED. REFER TO IHG SIGNAGE GUIDELINES FOR MORE INFORMATION.
31 GAS WATER HEATER - CONCENTRIC VENTS

GENERAL NOTES

A. SEE IHG SUPPLEMENTAL EXTERIOR FINISHES DOCUMENT FOR INFORMATION ON MATERIALS, SYSTEMS, AND COLORS.
B. TEMPERED GLAZING TO BE PROVIDED AS REQUIRED BY LOCAL BUILDING CODES.
C. COORDINATE PLACEMENT OF ALL LOUVERS, VENTS, AND OTHER EXTERIOR ELEMENTS WITH LOCATIONS OF SCORE JOINTS (TYP.).
D. ALL CONSTRUCTION IS INTENDED TO BE IN CONFORMANCE WITH FEDERAL & STATE LAWS, CURRENT LOCAL ORDINANCES & BUILDING CODES, AND ACCESSIBILITY CODES.
E. AUTOMATIC FIRE SPRINKLER SYSTEM MUST BE REVIEWED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
F. FIRE ALARM SYSTEM IS REQUIRED. SYSTEM MUST BE REVIEWED AND APPROVED BY THE FIRE DEPARTMENT.
G. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH MANUFACTURER ON FIXTURES, EQUIPMENT SUPPLIED, PRIOR TO CONSTRUCTION.

MATERIAL LEGEND

EXTERIOR CLADDING SYSTEM - B1
EXTERIOR CLADDING SYSTEM - B2
EXTERIOR CLADDING SYSTEM - B3
EXTERIOR CLADDING SYSTEM - EC-02
EXTERIOR CLADDING SYSTEM - EC-03
EXTERIOR CLADDING SYSTEM - EC-04

avid AN IHG® HOTEL
CANDLEWOOD SUITES AN IHG® HOTEL

Issue Date	Description
2021/07/11	DESIGN GUIDELINE DRAWINGS

CONSULTANT DISCLAMER
This is a Prototype design only. The drawings include plans, sections, elevations, typical construction details, diagrammatic layouts of the building systems and related information to convey the design intent for architectural, structural, mechanical, electrical, plumbing and technology systems. The design set forth with these documents may not be suitable for a particular site or certain local conditions. InterContinental Hotels Group and its retained consultants that prepared these documents are not responsible for adaptation of the design to a particular site, compliance of the design with applicable laws, regulations, ordinances and codes, or final design reviews required to prepare construction documents. The Franchisee and its retained architect and engineering consultants shall be exclusively responsible for all construction documents prepared for each hotel derived from this prototype documentation.

NOT FOR CONSTRUCTION

Project Name
DUAL BRAND PROTOTYPE

Project Number

Description
BUILDING ELEVATIONS - WEST & NORTH

Scale
AS INDICATED

A4.01

© 2021 IHG

VILLAGE OF SOMERS
Department of Planning and Development

VILLAGE OF SOMERS SITE PLAN REVIEW PROCEDURES

---

1. Contact the Kenosha County Department of Planning & Development and check with staff to determine if your proposed zoning change meets the requirements of the Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035, Village of Somers General Zoning and Shoreland/Floodplain Zoning Ordinance and the Village of Somers Land Division and Platting Control Ordinance.

2. Contact the Kenosha County Department of Planning & Development and schedule a pre-conference meeting, which is required for all site plan review requests.

Meeting Date: 7/13/23

3. Contact the Village of Somers to determine if your site plan review application requires concept review by the Village Plan Commission. If so, contact the Village of Somers clerk to schedule a concept meeting with the Village Plan Commission.

Meeting Date: _____

4. Complete and submit to the Kenosha County Department of Planning & Development the Village of Somers Site Plan Review Application by the filing deadline.

Filing Deadline: 4/26/24

5. Upon submission you will be given two copies of the date-stamped application. Submit a copy of the date-stamped application to the Village of Somers clerk for placement on the agendas of the Village of Somers Plan Commission and the Village of Somers Board. Keep the other copy for your records.

7. Attend the Village Plan Commission and the Village Board meetings. **NOTE:** You must attend or the Village will not be able to act on your request. At these meetings you will be asked to brief the committee on your request.

Village Plan Commission meeting date (tentative): 6/10/24

Village Board meeting date (tentative): 6/25/24

8. Village clerk will provide written notice of final action to property owner/applicant.

SITE PLAN REVIEW CHECKLIST

Owner: Somers Gateway Center LLC Date 04/26/24

Mailing Address: 1170 22nd Ave Phone # 262-425-1675

Kenosha, WI 53140 Phone #

Agent: Excel Engineering, Inc - Eric Drazkowski Phone # 920-322-1678

Mailing Address: 100 Camelot Dr Phone #

Fond du Lac, WI 54935

Architect/Engineer: Excel Engineering, Inc - Eric Drazkowski Phone # 920-322-1678

Mailing Address: 100 Camelot Dr Phone #

Fond du Lac, WI 54935

Tax Parcel Number(s): 82-4-222-073-0301 Acreage of Project: 4.16

Existing Zoning: A-4 Proposed Zoning: B-3 with PUD as part of master develoment

Conditional Use Permit: NA

Description of Project: (include the following when applicable):

Description of project: Hotel with associated site improvements

Size of existing building(s): NA

Size of new building(s) and/or addition(s): 14,075 SF

Number of current and projected full-time and part-time employees, number of shifts:

15 employees assumed

Number of proposed units: 1 Description of units: Hotel

Density: 107 rooms, 4 floors

☐ Plat of Survey Submitted: ☐ Covenants and Restrictions Submitted

A. BUILDING PLANS SUBMITTED? (BUILDING APPEARANCE)

☑ No building shall be permitted the design or exterior appearance of which is of such unorthodox or abnormal character in relation to its surroundings as to be unsightly or offensive to generally accepted taste and community standards.

☑ No building shall be permitted the design or exterior appearance of which is so identical with those adjoining as to create excessive monotony or drabness.

☑ No building shall be permitted where any exposed facade is not constructed or faced with a finished material which is aesthetically compatible with the other facades and presents an attractive appearance to the public and to surrounding properties.

☑ Building Scale and Mass. The relative proportion of a building to its neighboring buildings, to pedestrians and observers, or to other existing buildings shall be maintained or enhanced when new buildings are built or when existing buildings are remodeled or altered.

☑ Building Rooflines and Roof Shapes. The visual continuity of roofs and their contributing elements (parapet walls, coping, and cornices) shall be maintained in building development and redevelopment.

☑ Since the selection of building colors has a significant impact upon the public and neighboring properties, color shall be selected in general harmony with existing neighborhood buildings.

☑ No building or sign shall be permitted to be sited on the property in a manner which would unnecessarily destroy or substantially damage the natural beauty of the area, particularly insofar as it would adversely affect values incident to ownership of land in that area, or which would unnecessarily have an adverse effect on the beauty and general enjoyment of existing structures on adjoining properties.

☑ The facade of all buildings which face upon a street right-of-way shall be finished with an aesthetically pleasing material. A minimum of 50 percent of a facade facing an existing or future street shall be finished with a combination of brick, decorative masonry material, decorative pre-cast concrete panels, decorative glass panels, wood, or decorative metal or vinyl siding. Such finished material shall extend for a distance of at least 10 feet along the sides of the structure. All buildings on corner lots shall have the required finished facade facing each street.

B. SITE PLAN SUBMITTED?

☑ Building locations shall maintain required setbacks from property lines and road rights-of-way.

☑ Buildings and uses shall provide for safe traffic circulation and safe driveway locations.

☑ Buildings and uses shall be provided with adequate public services as approved by the appropriate utility.

☑ Buildings and uses shall provide adequate parking and loading areas. No loading dock or overhead doors shall face upon a street right-of-way without approval of the zoning administrator.

☑ Parking areas shall maintain required setbacks and parking spaces shall be of minimum required size (9' x 18'). Aisle widths within parking lots shall be a minimum of 24' between the ends of the parking spaces.

☑ Each parking space shall be on the same lot or parcel as the principal use, and all parking lots shall have the same zoning district as the principal use. Parking spaces and driveways shall be a minimum of 20 feet from the established highway right-of-way and a minimum of 10 feet from all rear and side lot lines. Curbs or barriers shall be installed so as to prevent vehicles from extending beyond designated parking or driving areas.

☑ Parking areas for five or more vehicles adjoining a residential use, shall be screened from such use by a solid wall, fence, evergreen planting of equivalent visual density or other effective means, and built and maintained at a minimum height of four feet at the time of planting or installation.

☑ Adequate access to a public or private roadway shall be provided for each parking space. For all non-residential properties, driveways for vehicular ingress and egress shall be a minimum of 10 feet in width and not exceed 35 feet in width at the property line.

☑ All off-street parking of more than five vehicles shall be graded and surfaced with asphalt or concrete.

C. LANDSCAPING AND LIGHTING PLAN SUBMITTED?

☑ Buildings and uses shall make appropriate use of open spaces. The zoning administrator or Village Board may require appropriate landscaping and planting screens. A landscaping maintenance program, together with appropriate assurances, shall be submitted.

☑ Dumpsters and other trash receptacles shall be fenced and/or screened from view from street rights-of-way and adjacent residential uses.

☑ Exterior lighting used for parking lots, recreation facilities, product display, and security shall not spill-over on operators of motor vehicles, pedestrians, and/or adjacent residential property (cut-off type luminaries only).

Appropriate buffers shall be provided between dissimilar uses.

D. SEWER VERIFICATION/SANITATION EVALUATION OR APPLICATION SUBMITTED?

E. UTILITY PLANS SUBMITTED?

F. STORMWATER DRAINAGE AND EROSION CONTROL PLAN SUBMITTED?

☑ Appropriate erosion control and stormwater management measures shall be utilized in all new development. Buildings and uses shall maintain existing topography, drainage patterns, and vegetative cover insofar as is practical. The zoning administrator or Village Board may require that drainage easements be executed.

IMPORTANT TELEPHONE NUMBERS

Kenosha County Center
Department of Planning & Development
19600 - 75th Street, Post Office, Suite 185-3
Bristol, Wisconsin 53104-9772

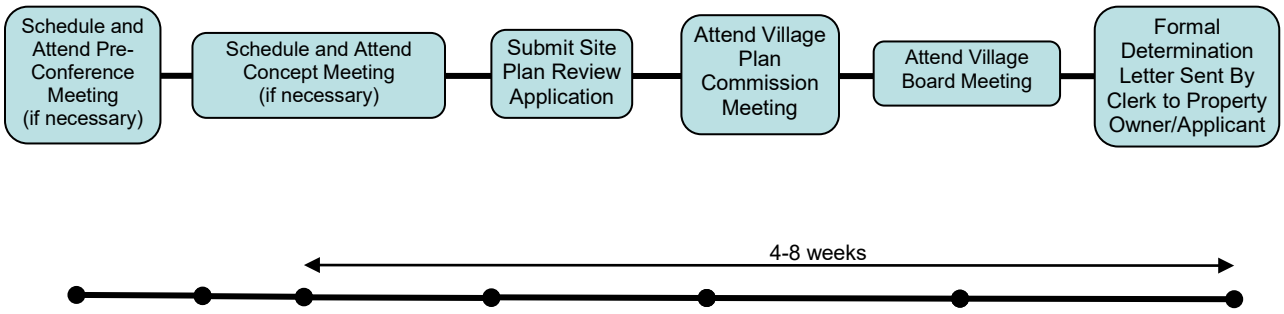
Division of County Development (including Sanitation & Land Conservation)..... **857-1895**
Facsimile #..... 857-1920

Public Works Division of Highways 857-1870

Administration Building
Division of Land Information..... 653-2622

Village of Somers 859-2822
Wisconsin Department of Natural Resources - Sturtevant Office 884-2300
Wisconsin Department of Transportation - Waukesha Office 548-8722

Site Plan Review Procedure Timeline



For Reference Purposes

VILLAGE OF SOMERS
Department of Planning and Development

VILLAGE OF SOMERS SITE PLAN REVIEW PROCEDURES

1. Contact the Kenosha County Department of Planning & Development and check with staff to determine if your proposed zoning change meets the requirements of the Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035, Village of Somers General Zoning and Shoreland/Floodplain Zoning Ordinance and the Village of Somers Land Division and Platting Control Ordinance.

2. Contact the Kenosha County Department of Planning & Development and schedule a pre-conference meeting, which is required for all site plan review requests.

   Meeting Date: 7/13/23

3. Contact the Village of Somers to determine if your site plan review application requires concept review by the Village Plan Commission. If so, contact the Village of Somers clerk to schedule a concept meeting with the Village Plan Commission.

   Meeting Date: _____

4. Complete and submit to the Kenosha County Department of Planning & Development the Village of Somers Site Plan Review Application by the filing deadline.

   Filing Deadline: 4/26/24

5. Upon submission you will be given two copies of the date-stamped application. Submit a copy of the date-stamped application to the Village of Somers clerk for placement on the agendas of the Village of Somers Plan Commission and the Village of Somers Board. Keep the other copy for your records.

7. Attend the Village Plan Commission and the Village Board meetings. **NOTE:** You must attend or the Village will not be able to act on your request. At these meetings you will be asked to brief the committee on your request.

   Village Plan Commission meeting date (tentative): 6/10/24

   Village Board meeting date (tentative): 6/25/24

8. Village clerk will provide written notice of final action to property owner/applicant.

SITE PLAN REVIEW CHECKLIST

Owner: Somers Gateway Center LLC Date 04/26/24

Mailing Address: 1170 22nd Ave Phone # 262-425-1675

Kenosha, WI 53140 Phone #

Agent: Excel Engineering, Inc - Devin Winter Phone # 920-322-1777

Mailing Address: 100 Camelot Dr Phone #

Fond du Lac, WI 54935

Architect/Engineer: Excel Engineering, Inc - Devin Winter Phone # 920-322-1777

Mailing Address: 100 Camelot Drive, Fond du Lac, WI 54935 Phone #

Tax Parcel Number(s): 82-4-222-073-0301 Acreage of Project: 8.06

Existing Zoning: 82-4-222-073-0301 Proposed Zoning: B-3 with PUD

Conditional Use Permit: CUP is required for fueling station and outdoor dining area

Description of Project: (include the following when applicable):

Description of project: Proposed 18,800 sf fueling station w/ convenience store and multiple restaurants with drive-thrus.

Size of existing building(s): NA

Size of new building(s) and/or addition(s): 18,800 sf

Number of current and projected full-time and part-time employees, number of shifts:

Total # of employees = 24 (20 Full Time, 4 Part-Time)

Number of proposed units: 1 Description of units: Fueling station with multiple restaurants

Density: 1:18.65 (Lot 1)

☐ Plat of Survey Submitted: ☐ Covenants and Restrictions Submitted

A. BUILDING PLANS SUBMITTED? (BUILDING APPEARANCE)

- [x] No building shall be permitted the design or exterior appearance of which is of such unorthodox or abnormal character in relation to its surroundings as to be unsightly or offensive to generally accepted taste and community standards.

- [x] No building shall be permitted the design or exterior appearance of which is so identical with those adjoining as to create excessive monotony or drabness.

- [x] No building shall be permitted where any exposed facade is not constructed or faced with a finished material which is aesthetically compatible with the other facades and presents an attractive appearance to the public and to surrounding properties.

- [x] Building Scale and Mass. The relative proportion of a building to its neighboring buildings, to pedestrians and observers, or to other existing buildings shall be maintained or enhanced when new buildings are built or when existing buildings are remodeled or altered.

- [x] Building Rooflines and Roof Shapes. The visual continuity of roofs and their contributing elements (parapet walls, coping, and cornices) shall be maintained in building development and redevelopment.

- [x] Since the selection of building colors has a significant impact upon the public and neighboring properties, color shall be selected in general harmony with existing neighborhood buildings.

- [x] No building or sign shall be permitted to be sited on the property in a manner which would unnecessarily destroy or substantially damage the natural beauty of the area, particularly insofar as it would adversely affect values incident to ownership of land in that area, or which would unnecessarily have an adverse effect on the beauty and general enjoyment of existing structures on adjoining properties.

- [x] The facade of all buildings which face upon a street right-of-way shall be finished with an aesthetically pleasing material. A minimum of 50 percent of a facade facing an existing or future street shall be finished with a combination of brick, decorative masonry material, decorative pre-cast concrete panels, decorative glass panels, wood, or decorative metal or vinyl siding. Such finished material shall extend for a distance of at least 10 feet along the sides of the structure. All buildings on corner lots shall have the required finished facade facing each street.

B. SITE PLAN SUBMITTED?

- [x] Building locations shall maintain required setbacks from property lines and road rights-of-way.

- [x] Buildings and uses shall provide for safe traffic circulation and safe driveway locations.

- [x] Buildings and uses shall be provided with adequate public services as approved by the appropriate utility.

☑ Buildings and uses shall provide adequate parking and loading areas. No loading dock or overhead doors shall face upon a street right-of-way without approval of the zoning administrator.

☑ Parking areas shall maintain required setbacks and parking spaces shall be of minimum required size (9' x 18'). Aisle widths within parking lots shall be a minimum of 24' between the ends of the parking spaces.

☑ Each parking space shall be on the same lot or parcel as the principal use, and all parking lots shall have the same zoning district as the principal use. Parking spaces and driveways shall be a minimum of 20 feet from the established highway right-of-way and a minimum of 10 feet from all rear and side lot lines. Curbs or barriers shall be installed so as to prevent vehicles from extending beyond designated parking or driving areas.

☑ Parking areas for five or more vehicles adjoining a residential use, shall be screened from such use by a solid wall, fence, evergreen planting of equivalent visual density or other effective means, and built and maintained at a minimum height of four feet at the time of planting or installation.

☑ Adequate access to a public or private roadway shall be provided for each parking space. For all non-residential properties, driveways for vehicular ingress and egress shall be a minimum of 10 feet in width and not exceed 35 feet in width at the property line.

☑ All off-street parking of more than five vehicles shall be graded and surfaced with asphalt or concrete.

C. LANDSCAPING AND LIGHTING PLAN SUBMITTED?

☑ Buildings and uses shall make appropriate use of open spaces. The zoning administrator or Village Board may require appropriate landscaping and planting screens. A landscaping maintenance program, together with appropriate assurances, shall be submitted.

☑ Dumpsters and other trash receptacles shall be fenced and/or screened from view from street rights-of-way and adjacent residential uses.

☑ Exterior lighting used for parking lots, recreation facilities, product display, and security shall not spill-over on operators of motor vehicles, pedestrians, and/or adjacent residential property (cut-off type luminaries only).

Appropriate buffers shall be provided between dissimilar uses.

D. SEWER VERIFICATION/SANITATION EVALUATION OR APPLICATION SUBMITTED?

E. UTILITY PLANS SUBMITTED?

F. STORMWATER DRAINAGE AND EROSION CONTROL PLAN SUBMITTED?

☑ Appropriate erosion control and stormwater management measures shall be utilized in all new development. Buildings and uses shall maintain existing topography, drainage patterns, and vegetative cover insofar as is practical. The zoning administrator or Village Board may require that drainage easements be executed.

IMPORTANT TELEPHONE NUMBERS

Kenosha County Center
Department of Planning & Development
19600 - 75th Street, Post Office, Suite 185-3
Bristol, Wisconsin 53104-9772

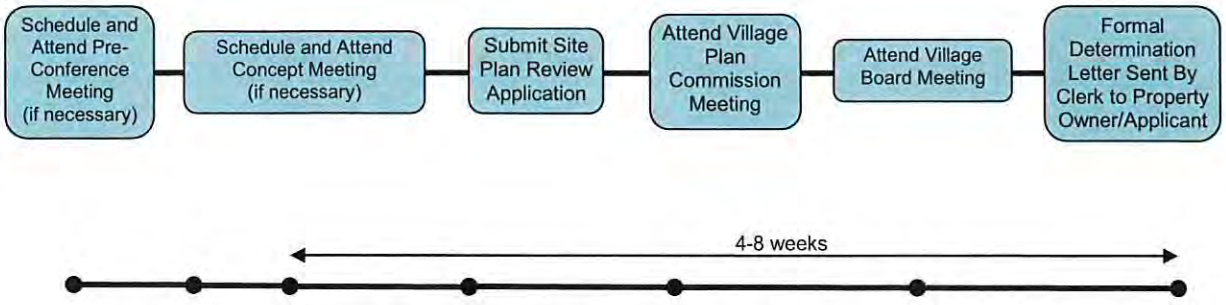
Division of County Development (including Sanitation & Land Conservation) **857-1895**
Facsimile # 857-1920

Public Works Division of Highways 857-1870

Administration Building
Division of Land Information 653-2622

Village of Somers 859-2822
Wisconsin Department of Natural Resources - Sturtevant Office 884-2300
Wisconsin Department of Transportation - Waukesha Office 548-8722

Site Plan Review Procedure Timeline



For Reference Purposes

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS, WISCONSIN

Golden Oil Company
PETROLEUM PRODUCTS

Keller
Planners | Architects | Builders
Offices in the Fox Cities, Madison, Milwaukee and Warsaw

CONCEPT ONLY

Golden Oil Company
PETROLEUM PRODUCTS

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS, **WISCONSIN**

Keller
Planners | Architects | Builders
Offices in the Five Cities, Madison, Milwaukee and Wausau

CONCEPT ONLY

SHEET INDEX

A1.0 FIRST FLOOR PLAN
A2.0 BUILDING ELEVATIONS AND SIGN ELEVATIONS
A2.1 GAS CANOPY FLOOR PLAN AND ELEVATIONS
A2.2 DUMPSTER ENCLOSURE PLAN AND ELEVATIONS
A3.0 BUILDING SECTIONS
A7.0 REFLECTED CEILING PLAN, ROOF PLAN
S1.0 FOUNDATION PLAN

BUILDING & FIRE AREA SQUARE FOOTAGES

FLOOR AREAS	PROPOSED
SECOND FLOOR	------ S.F.
FIRST FLOOR	18,812 S.F.
CANOPIES (COLUMN SUPPORTED)	------ S.F.
BASEMENT	------ S.F.
BUILDING AREA SUB-TOTALS	18,812 S.F.
MEZZANINES	------ S.F.
FIRE AREA TOTALS	18,812 S.F.

BUILDING CODE ANALYSIS

PROJECT ADDRESS
East Frontage Road, Somers, WI, 53144

APPLICABLE CODES
2015 International Building Code (w/ WI Amendments)
2015 International Energy Conservation Code

OCCUPANCY
A2 - Assembly (Restaurant Over 50 Seats)
B - Business
M - Mercantile
S1 - Moderate Hazard Storage
Accessory Use
?-?
Incidental Use

High-Piled Combustible Storage — NO
Hazardous Materials — NO
Single Control Area

HEIGHT & AREA
Building Height: 26'-0" — Maximum Allowed: 75'-0"
Number of Stories: 1 — Maximum Allowed: 3
Total Building Area: 14,674 S.F. — Maximum Allowed: 38,000 S.F.
Total Fire Area: 14,674 S.F. — Maximum Allowed: 66,500 S.F.
Mixed/Separated Occupancies
Unlimited Area Building — NO

CONSTRUCTION TYPE
Construction Classification — IIB
Fire Separation Distance — 30'-0"+

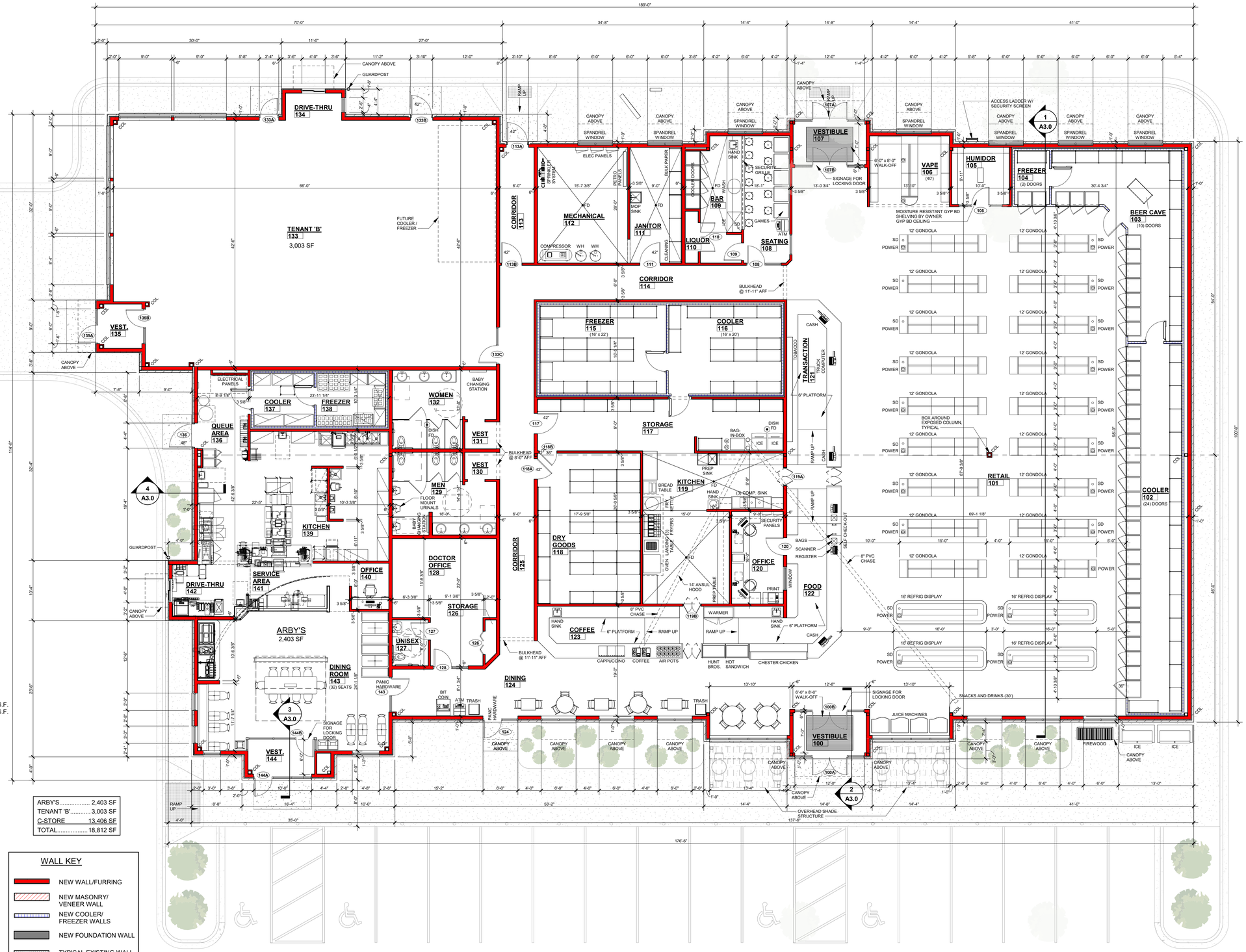
FIRE PROTECTION SYSTEMS
Assumed Sprinkler Type — NFPA 13
Fire Alarm System — NO

MEANS OF EGRESS
Occupant Load 233
Panic Hardware YES

STRUCTURAL DESIGN
Risk Category — II
Live Loads
Roof Live Load — 20 psf
Second Floor/Mezz Live Load — -- psf
Collateral Load — 5 psf
Snow Load
Ground Snow Load — 30 psf
Exposure Factor — 0.9
Thermal Factor — 1.0
Wind Loads
Wind Load — 115 MPH
Exposure Category — C
Earthquake Loads
Seismic Site Class — D

PLUMBING SYSTEMS
Mens WC Required — 1
Womens WC Required — 1
Drinking Fountain — NO
Other Source — YES

MECHANICAL SYSTEMS
NO SINGLE PIECE OF EQUIPMENT OVER 400,000 BTU



ARBY'S..... 2,403 SF
TENANT 'B'..... 3,003 SF
C-STORE 13,406 SF
TOTAL..... 18,812 SF

WALL KEY

- NEW WALL/FURRING
- NEW MASONRY/ VENEER WALL
- NEW COOLER/ FREEZER WALLS
- NEW FOUNDATION WALL
- TYPICAL EXISTING WALL
- DEMO WALLS
- FIRE WALL OR FIRE BARRIER

NORTH

FLOOR PLAN
1/8" = 1'-0"

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lois Dr.
Sun Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2337

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

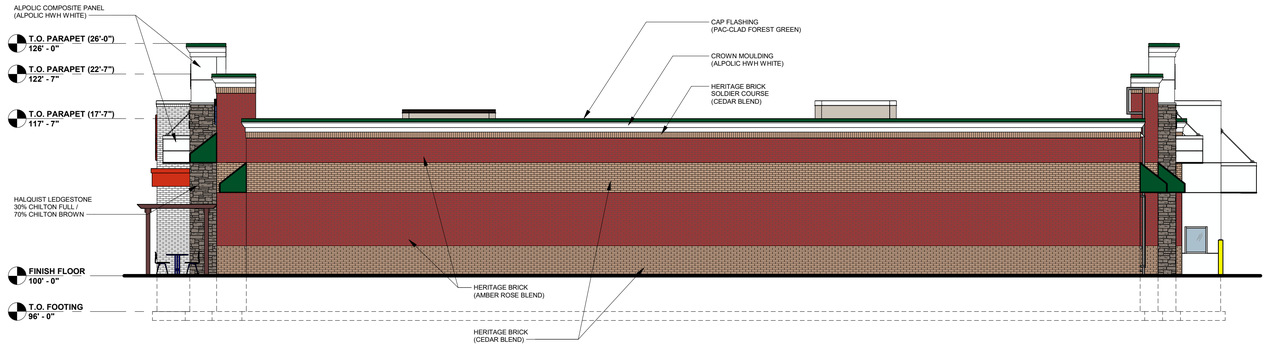
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY - NOT FOR CONSTRUCTION

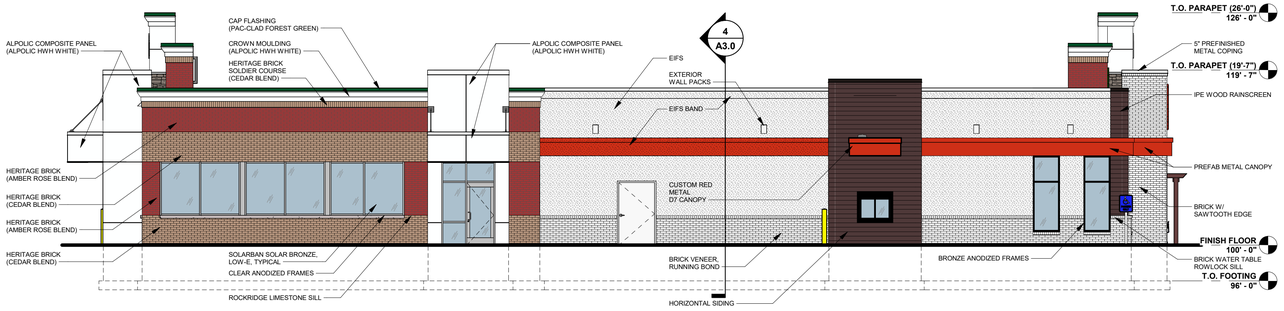
REVISIONS

10	07.21.2023	ACM
11	08.01.2023	ACM
12	02.14.2024	ACM
13	03.05.2024	ACM
14	03.29.2024	ACM
15	04.05.2024	ACM

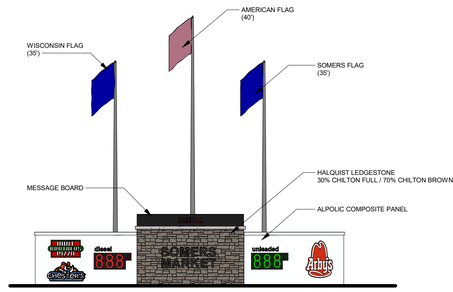
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: ACM
EXPEDITOR: -------
SUPERVISOR: -------
PRELIMINARY NO: P22188
CONTRACT NO: -------
DATE: 06.21.2022
SHEET: A1.0



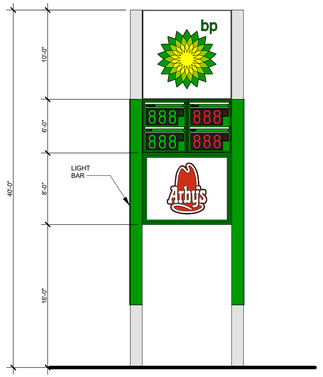
EAST ELEVATION
1/8" = 1'-0"



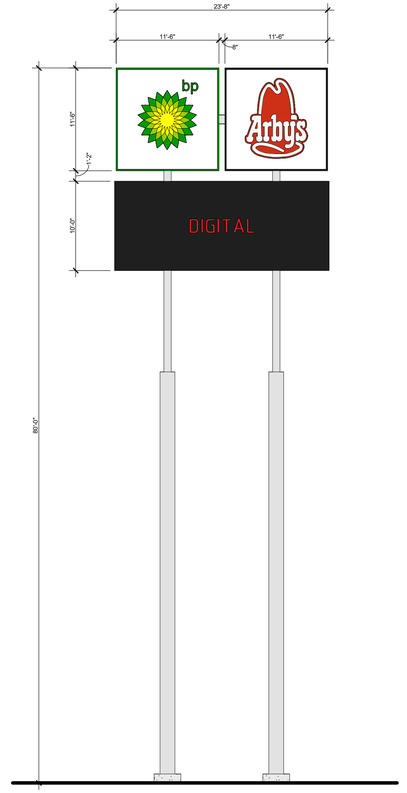
WEST ELEVATION
1/8" = 1'-0"



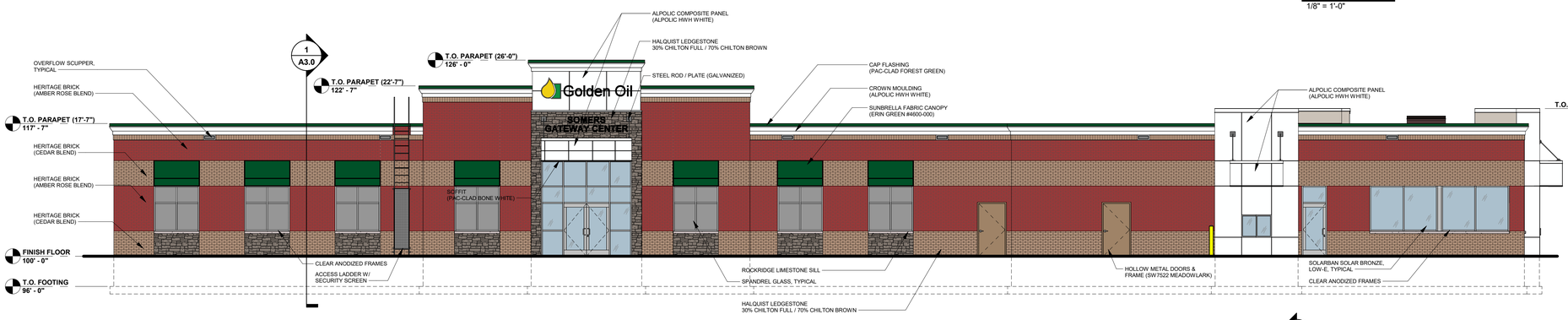
MUNICIPAL SIGN
1/8" = 1'-0"



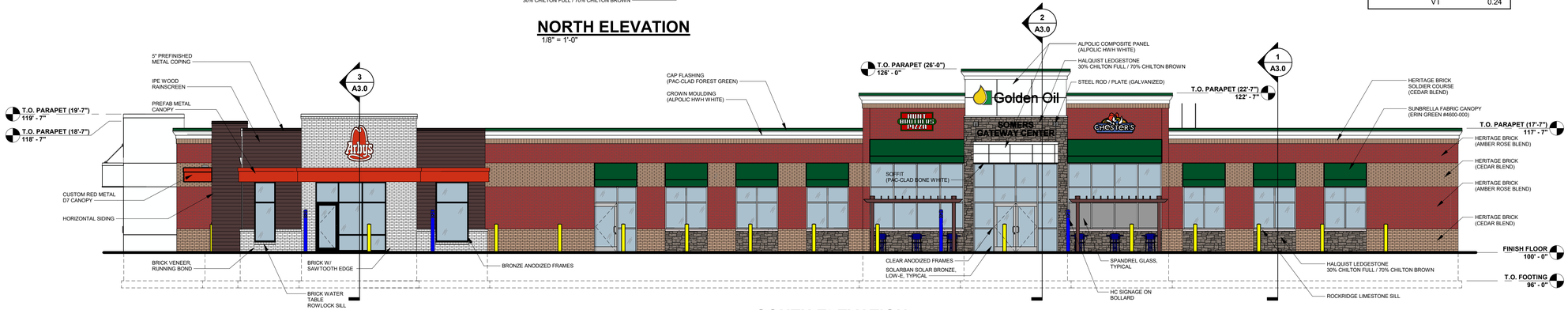
40'-0" SIGN
1/8" = 1'-0"



80'-0" SIGN
1/8" = 1'-0"



NORTH ELEVATION
1/8" = 1'-0"



SOUTH ELEVATION
1/8" = 1'-0"

DOOR & WINDOW VALUES		
WINDOWS:	U VALUE	0.4
	SHGC	0.277
	VT	0.36
DOORS: (SWINGING)	U VALUE	0.38
O.H. DOORS: (NON-SWINGING)	U VALUE	0.108
DOORS: (>50% GLAZING)	U VALUE	0.701
	SHGC	0.205
	VT	0.24

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lois Dr.
Sun Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2337

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

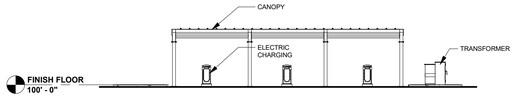
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

REVISIONS

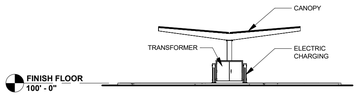
10	07.21.2023	ACM
11	08.01.2023	ACM
12	02.14.2024	ACM
13	03.05.2024	ACM
14	03.29.2024	ACM
15	04.05.2024	ACM

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: ACM
EXPEDITOR: -------
SUPERVISOR: -------
PRELIMINARY NO: P22188
CONTRACT NO: -------
DATE: 06.21.2022
SHEET: A2.0

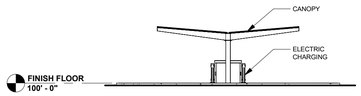
PRELIMINARY - NOT FOR CONSTRUCTION



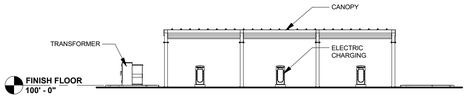
ELECTRIC CHARGING NORTH ELEVATION
1/16" = 1'-0"



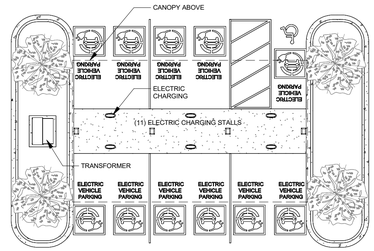
ELECTRIC CHARGING WEST ELEVATION
1/16" = 1'-0"



ELECTRIC CHARGING EAST ELEVATION
1/16" = 1'-0"



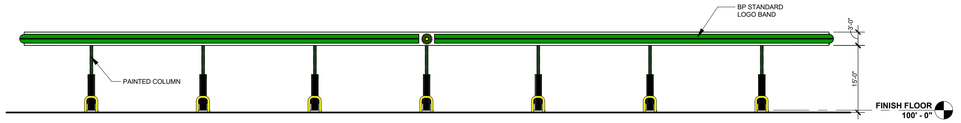
ELECTRIC CHARGING SOUTH ELEVATION
1/16" = 1'-0"



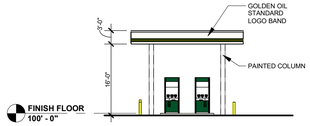
NORTH

ELECTRIC CHARGING CANOPY FLOOR PLAN
1/16" = 1'-0"

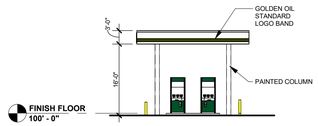
DIESEL CANOPY WEST ELEVATION
1/16" = 1'-0"



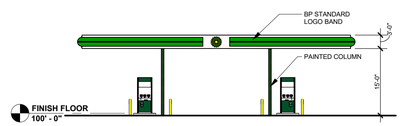
GAS CANOPY NORTH ELEVATION
1/16" = 1'-0"



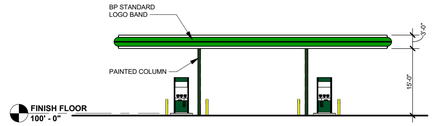
DIESEL CANOPY SOUTH ELEVATION
1/16" = 1'-0"



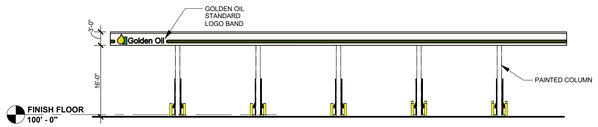
DIESEL CANOPY NORTH ELEVATION
1/16" = 1'-0"



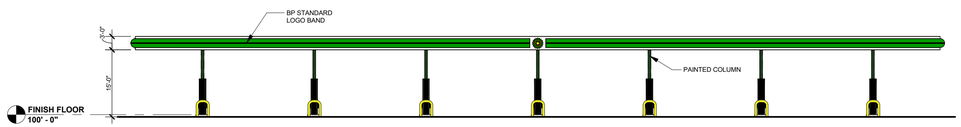
GAS CANOPY WEST ELEVATION
1/16" = 1'-0"



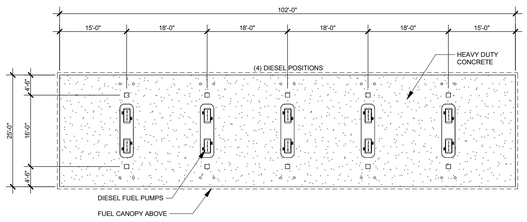
GAS CANOPY EAST ELEVATION
1/16" = 1'-0"



DIESEL CANOPY EAST ELEVATION
1/16" = 1'-0"

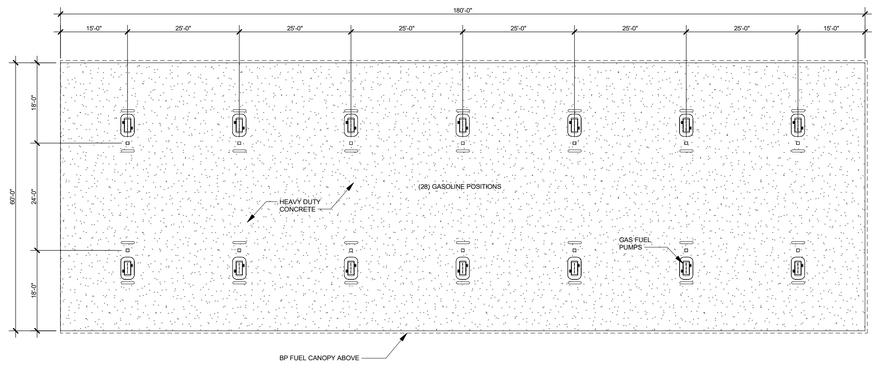


GAS CANOPY SOUTH ELEVATION
1/16" = 1'-0"



NORTH

DIESEL CANOPY FLOOR PLAN
1/16" = 1'-0"



NORTH

GAS CANOPY FLOOR PLAN
1/16" = 1'-0"

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 /
1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lois Dr.
Sun Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2337

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

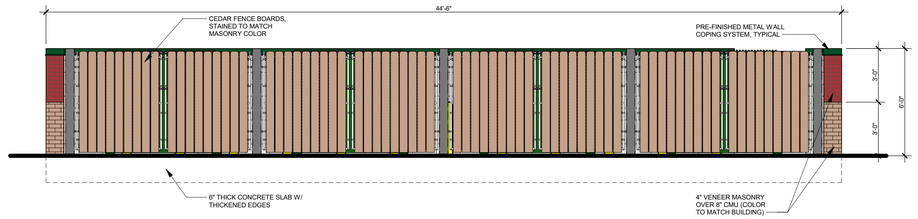
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

REVISIONS

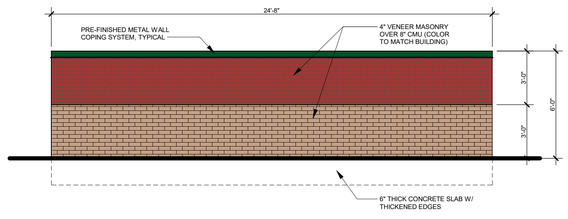
10	07.21.2023	ACM
11	08.01.2023	ACM
12	02.14.2024	ACM
13	03.05.2024	ACM
14	03.29.2024	ACM
15	04.05.2024	ACM

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: ACM
EXPEDITOR: -------
SUPERVISOR: -------
PRELIMINARY NO: P22188
CONTRACT NO: -------
DATE: 06.21.2022
SHEET: A2.1

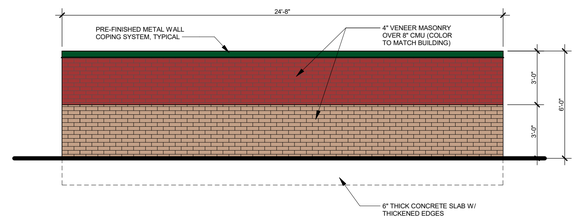
PRELIMINARY - NOT FOR CONSTRUCTION



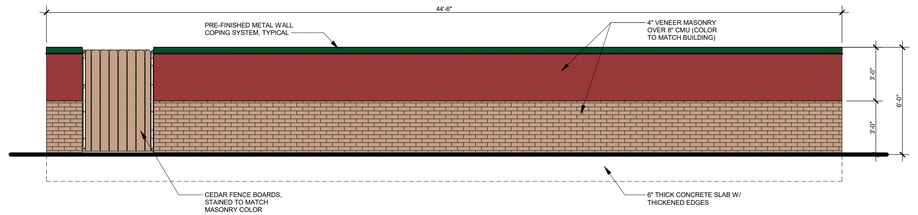
DUMPSTER ENCLOSURE - WEST ELEVATION
1/4" = 1'-0"



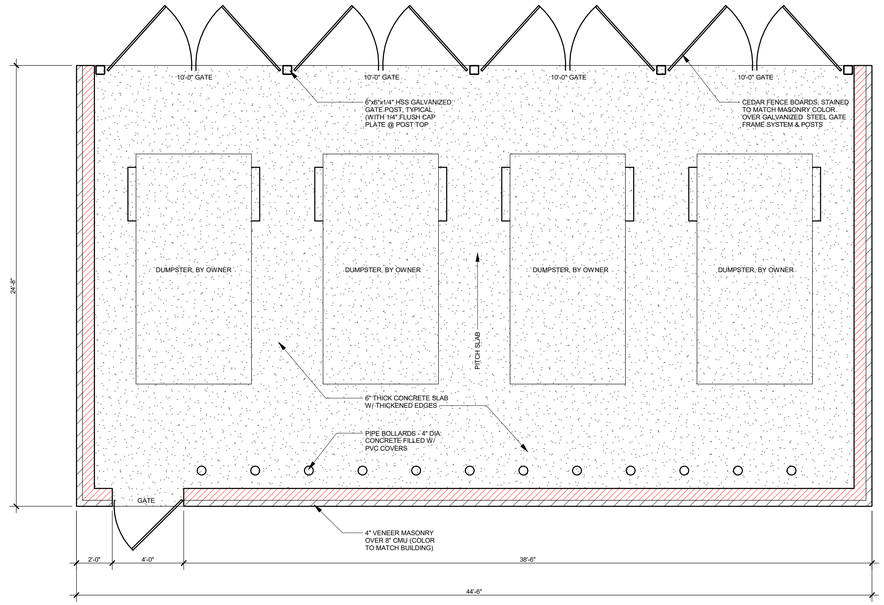
DUMPSTER ENCLOSURE - SOUTH ELEVATION
1/4" = 1'-0"



DUMPSTER ENCLOSURE - NORTH ELEVATION
1/4" = 1'-0"



DUMPSTER ENCLOSURE - EAST ELEVATION
1/4" = 1'-0"



NORTH

DUMPSTER ENCLOSURE PLAN
1/4" = 1'-0"

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lois Dr.
Sun Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2337

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

REVISIONS

10	07.21.2023	ACM
11	08.01.2023	ACM
12	02.14.2024	ACM
13	03.05.2024	ACM
14	03.29.2024	ACM
15	04.05.2024	ACM

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: ACM
EXPEDITOR: -------
SUPERVISOR: -------
PRELIMINARY NO: P22188
CONTRACT NO: -------
DATE: 06.21.2022
SHEET: A2.2

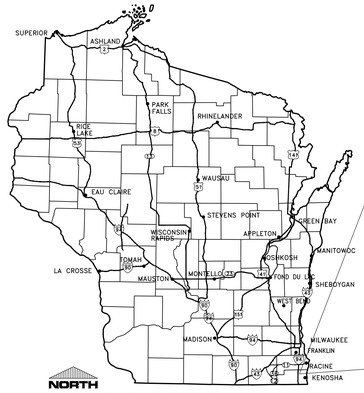
PRELIMINARY - NOT FOR CONSTRUCTION

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

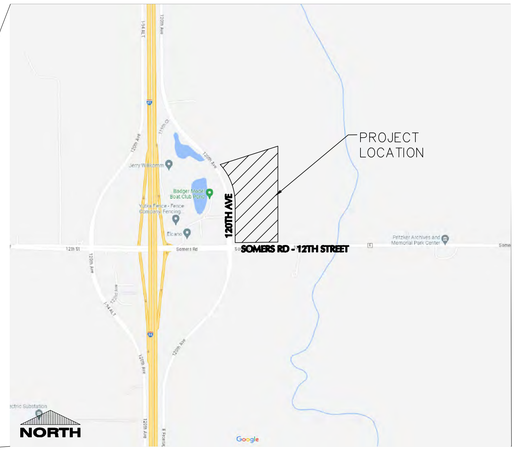
LEGEND

000.00	PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)
000.00 EG	EXISTING GRADE SPOT ELEVATIONS
000.00 BG 000.00 FG	PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG-FINISHED SURFACE GRADE AT BACK OF WALL FG-FINISHED SURFACE GRADE AT FRONT OF WALL
000.00 TC 000.00 FL	PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
000.00 TW 000.00 BW	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
	EXISTING WATER VALVE IN BOX
	PROPOSED WATER VALVE IN BOX
	EXISTING WATER VALVE IN MANHOLE
	EXISTING WATER SERVICE VALVE
	EXISTING TELEPHONE MANHOLE
	EXISTING STORM CATCH BASIN
	PROPOSED STORM CATCH BASIN – ST CB
	PROPOSED STORM FIELD INLET – ST FI
	EXISTING SQUARE CATCH BASIN
	EXISTING STORM CURB INLET
	PROPOSED STORM CURB INLET – ST CI
	EXISTING UTILITY POLE
	EXISTING UTILITY POLE WITH GUY WIRE
	EXISTING STREET LIGHT
	EXISTING TELEPHONE PEDESTAL
	EXISTING ELECTRIC PEDESTAL
	EXISTING ELECTRIC BOX
	EXISTING CABLE TV PEDESTAL
	PROPOSED DRAINAGE FLOW
	1-1/4" REBAR SET WEIGHING 4.30 LB/FT.
	3/4" REBAR SET WEIGHING 1.50 LB/FT.
	1-1/4" REBAR FOUND
	3/4" REBAR FOUND
	2" IRON PIPE FOUND
	1" IRON PIPE FOUND
	EXISTING FLOOD LIGHT
	SECTION CORNER
	PROPOSED APRON END SECTION
	EXISTING MARSH AREA
	EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
	EROSION MATTING
IP	PROPOSED INLET PROTECTION

	EXISTING CONIFEROUS TREE
	EXISTING SHRUB
	EXISTING STUMP
	SOIL BORING
	EXISTING WELL
	PROPOSED WELL
	PROPOSED LIGHT POLE
	EXISTING LIGHT POLE
	PROPOSED SIGN
	EXISTING SIGN
	CENTER LINE
	EXISTING HANDICAP PARKING STALL
	PROPOSED HANDICAP PARKING STALL
	EXISTING GAS VALVE
	EXISTING WOODED AREA
	EXISTING HEDGE
	EXISTING CHAINLINK FENCE
	EXISTING WOOD FENCE
	EXISTING BARBED WIRE FENCE
	PROPOSED PROPERTY LINE
	EXISTING GUARD RAIL
ST	EXISTING STORM SEWER AND MANHOLE
ST	PROPOSED STORM SEWER AND MANHOLE – ST MH
SA	EXISTING SANITARY SEWER AND MANHOLE
SA	PROPOSED SANITARY SEWER AND MANHOLE – SAN MH
W	EXISTING WATER LINE AND HYDRANT
W	PROPOSED WATER LINE AND HYDRANT
OU	EXISTING OVERHEAD UTILITY LINE
FO	EXISTING UNDERGROUND FIBER OPTIC LINE
E	EXISTING UNDERGROUND ELECTRIC CABLE
T	EXISTING UNDERGROUND TELEPHONE CABLE
G	EXISTING UNDERGROUND GAS LINE
	PROPOSED CURB AND GUTTER
	EXISTING CURB AND GUTTER
	GRADING/SEEDING LIMITS
	RIGHT-OF-WAY LINE
	INTERIOR PROPERTY LINE
	RAILROAD TRACKS
800	EXISTING GROUND CONTOUR
800	PROPOSED GROUND CONTOUR



LOCATION MAP



PROJECT LOCATION MAP

CIVIL SHEET INDEX

SHEET	SHEET TITLE
C0.1	CIVIL COVER SHEET
C0.2	CIVIL SPECIFICATION SHEET
C0.3	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C1.0A	EXISTING SITE AND DEMOLITION PLAN - OVERALL
C1.0B	EXISTING SITE AND DEMOLITION PLAN - SOUTHWEST
C1.0C	EXISTING SITE AND DEMOLITION PLAN - NORTHWEST
C1.0D	EXISTING SITE AND DEMOLITION PLAN - SOUTHEAST
C1.0E	EXISTING SITE AND DEMOLITION PLAN - NORTHEAST
C1.1A	SITE PLAN - OVERALL
C1.1B	SITE PLAN - SOUTHWEST
C1.1C	SITE PLAN - NORTHWEST
C1.2A	GRADING AND EROSION CONTROL PLAN - OVERALL
C1.2B	GRADING AND EROSION CONTROL PLAN - SOUTHWEST
C1.2C	GRADING AND EROSION CONTROL PLAN - NORTHWEST
C1.2D	GRADING AND EROSION CONTROL PLAN - SOUTHEAST
C1.2E	GRADING AND EROSION CONTROL PLAN - NORTHEAST
C1.2F	GRADING AND EROSION CONTROL PLAN - NORTH
C1.3A	UTILITY PLAN - OVERALL
C1.3B	UTILITY PLAN - SOUTHWEST
C1.3C	UTILITY PLAN - NORTHWEST
C1.3F	UTILITY PLAN - NORTH
C1.4A	LANDSCAPE AND RESTORATION PLAN - OVERALL
C1.4B	LANDSCAPE AND RESTORATION PLAN - SOUTHWEST
C1.4C	LANDSCAPE AND RESTORATION PLAN - NORTHWEST
C1.4D	LANDSCAPE AND RESTORATION PLAN - SOUTHEAST
C1.4E	LANDSCAPE AND RESTORATION PLAN - NORTHEAST
C1.4F	LANDSCAPE AND RESTORATION PLAN - NORTH
C1.5	SITE PHOTOMETRIC PLAN & DETAILS
C2.0	PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 0+00 - 9+00
C2.1	PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 9+00 - 12+08
C2.2	PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 20+00 - 25+45
C2.3	PUBLIC UTILITY EXTENSION PLAN & PROFILE- STA 30+00 - 37+06
C2.4	PUBLIC HYDRANT PLAN & PROFILES
C3.0	DETAILS
C3.1	DETAILS
C3.2	DETAILS

PUBLIC IMPROVEMENT SHEET INDEX

SHEET	SHEET TITLE
C4.0	CIVIL COVER SHEET
C4.1	CIVIL SPECIFICATION SHEET
C4.2	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C4.3	SITE, GRADING, EROSION CONTROL, & RESTORATION PLAN
C4.4	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 12+08 - 14+81
C4.5	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 37+06 - 42+20
C4.6	DETAILS

CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
	2. PLACE ALL SILT FENCE.
	3. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS.
	4. CONSTRUCT PERMANENT DETENTION PONDS AND PERMANENT STORMWATER CONVEYANCE SYSTEMS.
	5. CONSTRUCT ANY TEMPORARY STORMWATER CONVEYANCE SYSTEMS.
	6. STABILIZE ALL TEMPORARY AND PERMANENT EROSION CONTROL AND STORMWATER CONVEYANCE SYSTEMS BEFORE TOPSOIL CAN BE STRIPPED.
2. CONSTRUCTION ACTION	1. CLEAR AND GRUB TREES AND BRUSH AS REQUIRED.
	2. STRIP AND RELOCATE TOPSOIL TO THE DESIGNATED TOPSOIL STOCKPILE LOCATION. SURROUND STOCKPILE WITH SILT FENCE.
	3. BEGIN MASS EARTH WORK FOR THE BUILDING PAD AND PAVEMENT AREAS.
	4. CONSTRUCT ANY REMAINING STORMWATER CONVEYANCE SYSTEMS, AND INSTALL ALL OTHER UTILITIES ON SITE.
	5. DIG AND POUR ALL BUILDING FOOTINGS.
	6. PLACE GRAVEL FOR ALL PROPOSED PAVEMENT AREAS, INCLUDING FIRE LANES.
	7. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PROPOSED PAVEMENT AREAS.
	8. CONSTRUCT BUILDING.
	9. PAVE DRIVEWAYS AND PARKING AREAS.
	10. TOPSOIL, SEED, AND MULCH ALL OTHER DISTURBED AREAS. PLACE EROSION MATTING AND RIP RAP.
3. POST CONSTRUCTION ACTION	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.
	2. SEE THE POST CONSTRUCTION MAINTENANCE PLAN FOR PERMANENT STORMWATER MANAGEMENT SYSTEMS.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

GENERAL PROJECT NOTES

1. ALL DRIVEWAYS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS. ALL WORK IN THE ROW SHALL CONFORM TO KENOSHA COUNTY STANDARDS & SPECIFICATIONS.
3. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.
4. ANY PERSON ERECTING, MOVING, ENLARGING OR RECONSTRUCTING A STRUCTURE, WHICH, UNDER THIS ORDINANCE, REQUIRES A ZONING PERMIT SHALL UPON COMPLETION OF THE CONSTRUCTION OF FOOTINGS, CONCRETE SLAB OR OTHER FOUNDATIONS, SUBMIT TO THE DEPARTMENT OF PLANNING AND DEVELOPMENT A SURVEY PREPARED BY A REGISTERED LAND SURVEYOR SHOWING THE LOCATIONS, BOUNDARIES, DIMENSIONS, ELEVATIONS AND SIZE OF THE FOLLOWING: THE BOUNDARIES OF THE LOT, ALL EXISTING STRUCTURES (INCLUDING FOUNDATIONS) AND THEIR RELATIONSHIP TO THE LOT LINES. THE VILLAGE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL COMPARE THE LOCATION OF ALL NEW OR EXTENDED FOUNDATIONS WITH THE LOCATION OF ALL PROPOSED CONSTRUCTION ACTIVITY REPORTED ON THE PERMIT APPLICATION. NO FURTHER CONSTRUCTION MAY COMMENCE UNLESS THE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL FIND THAT THE FOUNDATION LOCATION IS CONSISTENT WITH THE PERMIT AS ISSUED AND SHALL SO CERTIFY. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION SHALL BE GROUNDS FOR THE ISSUANCE OF A CITATION PURSUANT TO SECTION ZN 6.03(3) OF THIS ORDINANCE, AND ATTENDANT PENALTIES.
5. CONTRACTOR SHALL OBTAIN AND FOLLOW THE VILLAGE OF SOMERS DEVELOPMENT STANDARDS DATED APRIL 3,2018 AND STANDARD MATERIAL SPECIFICATION CHECKLIST DATED JULY 2023 FOR ALL CONSTRUCTION REQUIREMENTS. IF DISCREPANCIES ARE NOTICED, CONTRACTOR SHALL CONFORM TO VILLAGE OF SOMERS REQUIREMENTS.
6. **CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY OF THE PROPOSED WATER MAIN AND SANITARY MAINS FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE PUBLIC MAINS. THE CONTRACTOR SHALL TAKE ADEQUATE FIELD NOTES, PICTURES, ETC AND PROVIDE TO THE ENGINEER OF RECORD FOR COMPLETION OF THE RECORD DRAWINGS. THE RECORD DRAWINGS SHALL BE COMPLETED AND SUBMITTED TO THE VILLAGE ENGINEER PRIOR TO THE PROPERTY DEVELOPER'S REQUEST FOR FINAL INSPECTION OF THE IMPROVEMENTS. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE FOR SURVEYING.**
7. IF DEWATERING IS REQUIRED FOR INSTALLATION OF UTILITIES OR OTHER IMPROVEMENTS FOR THE PROPOSED PROJECT, THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT AND OBTAIN THE NECESSARY WISCONSIN DISCHARGE ELIMINATION SYSTEM (WPDES) PERMITS FOR DEWATERING AS REQUIRED./NECESSARY BY THE WISCONSIN DNR. DEWATERING SHALL BE IN ACCORDANCE WITH WI DNR TECH STANDARD 1061.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511

TOLL FREE
TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED) 1-800 542-2289

WISCONSIN STATUTE 182.0175 (1974) REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

CONTACTS

OWNER
SOMERS GATEWAY CENTER, LLC
1170 22ND AVE
KENOSHA, WI 53140
CONTACT: PAUL BHARDWAJ
P: (262) 425-1675
paul@goldenoilcompany.com

DEVELOPER
KELLER BUILDS, INC
W204 N11509 GOLDENDALE RD
GERMANTOWN, WI 53022
CONTACT: NATHAN LAURENT
P: (262) 894-2612
F: (262) 8250-9740
nlaurent@kellerbuilds.com

CIVIL
EXCEL ENGINEERING
100 CAMELOT DRIVE
FOND DU LAC, WISCONSIN 54935
CONTACT: DEVIN WINTER, P.E.
P: (920) 926-9800
F: (920) 926-9801
devin.winter@excelengineer.com

CIVIL COVER SHEET

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C0.1

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT.
   2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
   4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   5. UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
   6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY
H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION; WATER SPRAYING, SURFACE ROUGHENING; APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (5 LT 58-28S)	1-1/2" SURFACE COURSE (5 LT 58-28S)
(WISDOT 455.2.5 TACK COAT (STAGED PAVING)	WISDOT 455.2.5 TACK COAT (STAGED PAVING)
2" BINDER COURSE (4 LT 58-28S)	2-1/2" BINDER COURSE (4 LT 58-28S)
10" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE

B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
D. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 20 00 CONCRETE AND AGGREGATE BASE

A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
   1. SIDEWALK CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
   2. DUMPSTER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB:
         1). TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
         1). CONTRACTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9' SPEED DOWEL TUBES SHALL BE USED.
   3. HEAVY DUTY CONCRETE (TRUCK TRAFFIC) - 6" OF CONCRETE OVER 6" OF 3/4" CRUSHED AGGREGATE. CONCRETE SHALL BE REINFORCED WITH #3 REBARS ON CHAIRS AT 2'-0" O.C. REBAR SHALL BE PLACED AT ½ OF THE SLAB DEPTH. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 15' ON CENTER.
   4. LIGHT DUTY CONCRETE (PASSENGER CAR TRAFFIC) - 5" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN DEPTH AND BE SPACED A MAXIMUM OF 12.5' ON CENTER
      a. CONCRETE SHALL BE STEEL REINFORCED AS FOLLOWS:
         1). TIE BARS AT OUTERMOST CONTRACTION JOINT (FIRST JOINT FROM EDGE OR AT CURB JOINT) AROUND PERIMETER OF CONCRETE. TIE BARS SHALL BE #4 REBAR 24" LONG PLACED AT 30" O.C.
         2). TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1/4" X 4-1/2" X 4-1/4" DIAMOND SHAPED TAPERED PLATE DOWELS MANUFACTURED PER ASTM A36. INSTALL PER MANUFACTURERS SPECIFICATIONS.
E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
   1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
   2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
   3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
   4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER.
   5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
   6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
   7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). 3" CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE-STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45.
M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.
N. CONTRACTOR TO PROVIDE 4" WIDE YELLOW PAINTED STRIPING FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

32 30 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STON

Village of Somers, Wisconsin

Standard Material Specification Checklist

Established 1843 Somers VILLAGE & TOWN

Prepared by:

BAXTER & WOODMAN Consulting Engineers

www.baxterwoodman.com

Date: March 22, 2018
Last Revised: July 2023

GENERAL

- ☐ Comply with the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition.
- ☐ Obtain written approval for the proposed Plans and Specifications from the Village Engineer prior to construction.

SANITARY SEWER

GENERAL

- ☐ Bedding & cover material: 3/8" crushed limestone chips to 12" above pipe (pea gravel is not acceptable).
- ☐ Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- ☐ Consolidation of backfill: 95% standard Proctor density for imported granular material and 100% for excavated material of existing aggregate material in the adjacent trench wall. Use mechanical means, unless allowed otherwise.
- ☐ Mandrel test: 95% mandrel after 30-days.
- ☐ Internal sewer inspection: Closed circuit color television with a small flow of water in the pipe.
- ☐ Low-pressure air test: Per Standard Specifications.
- ☐ Manhole vacuum test: Per Standard Specifications.

PIPE MATERIAL

- ☐ Minimum 8-inch PVC SDR-26 (min.) conforming to ASTM D-3034, unless allowed otherwise.

MANHOLE MATERIALS

- ☐ 48-inch ID precast concrete w/eccentric cone (typ.), ASTM C478. Manhole steps shall be removed on the top section after construction is complete.
- ☐ Design flat top slabs to resist H-20 loading.
- ☐ Frames and covers: Neenah R-1580 or equal, with Type B non-rocking lid, stamped with the word "SANITARY"; self-sealing gaskets; and concealed pick holes.
- ☐ Floodplain Areas: Use bolted and gasketed watertight frame and cover: Neenah R-1916-C, East Jordan 1058 WT, or equal.
- ☐ Use a minimum of 4 inches and a maximum of 19 inches of concrete adjusting rings.
- ☐ Internal/external chimney seals: Adaptor, Inc. or equal.
- ☐ Exterior joint protection: WrapidSeal by CCI Pipeline Systems or MacWrap by Mar Mac Construction Products.
- ☐ Exterior surface treatment: Heavy-duty coal tar pitch, Top-Coat or bituminous Super Service Black.

SANITARY LATERALS

- ☐ Minimum 6-inch PVC SDR-26.
- ☐ Provide wye connections unless allowed otherwise by Village Engineer. Provide ductile iron riser tee on deeper installations.
- ☐ Terminate lateral pipe with a wooden 2x4 set one foot above finish grade.

- ☐ Lateral pipe locator wire and terminal post: No. 10 AWG single strand insulated copper wire and Copperhead Industries – Snake Pit Terminal Box, or approved equal.

WATER MAIN

GENERAL

- ☐ Only joint deflections within pipe manufacturer's specifications are permitted without fittings.
- ☐ Polyethylene wrap: Provide 8 mil on ductile iron pipe, valves, valve boxes, fittings, fire hydrant barrel sections, and curb boxes.
- ☐ Bedding & cover material: 3/8" crushed limestone chips to 12" above pipe (pea gravel is not acceptable).
- ☐ Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- ☐ Operation of valves: By Village representatives or agents unless allowed otherwise.
- ☐ One-hour pressure test: 150 psi with no loss.
- ☐ Leakage test (only if pressure test fails): Two hours at system pressure per Standard Specifications.
- ☐ Water services over 2-inch diameter shall meet the specifications for water main and include a gate valve/valve box at the point of connection to the water main.
- ☐ Water services equal or less than 2-inch diameter shall meet the specifications for water services and have a curb stop/service box placed one foot from the right-of-way line.

PIPE MATERIAL

- ☐ ~~Ductile iron: Conforming to AWWA C-151/ANSI A21.51, minimum Class 52.~~
- ☐ PVC: Conforming to AWWA C-900, class 150, SDR 18.
- ☐ Tracer wire shall be installed with PVC pipe, extend wire to hydrants terminated in a Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~4-inch diameter by 30-inch long PVC pipe with a threaded cap~~ set behind the hydrant.

LOCATOR WIRE

- ☐ Tracer locator wire: Install with PVC pipe, single strand blue insulated copper, minimum No. 10 AWG.
- ☐ Location: On top of PVC pipe and fittings, secure at min. 10-foot intervals.
- ☐ Terminal Box: Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~2-1/2 inch by 18-inch C.P. Test Services – Valvco.~~
- ☐ Extend locator wire to top of terminal boxes leaving 12 inches of slack for future connection and connect to terminal box.
- ☐ Secure terminal box to back side of fire hydrant barrel and all service curb stops and set top of box flush with finished grade. Connect service locator wire to water main locator wire.

FITTINGS

- ☐ Only American-made fittings, pipe, valves, and hydrants will be allowed.
- ☐ Ductile iron fittings: Meet AWWA C-110/ANSI A21.10 or A21.53.
- ☐ ~~All fittings shall be full-bodied styles.~~
- ☐ If a sleeve is required, a full-bodied solid sleeve shall be used.

- ☐ Fittings shall be polyethylene wrapped per Standard Specifications.
- ☐ Bolts and nuts: Cor-Blue or A-304 stainless steel, no substitutions.
- ☐ Use restrained joints on all fittings.
- ☐ Thrust blocking (in addition to restrained mechanical joints): Solid concrete masonry units or Class F poured concrete per Section 4.3.13 of the Standard Specifications. Wood thrust blocking will not be permitted.

VALVES

- ☐ 4-inch to 12-inch: Resilient wedge gate valve, non-rising stem meeting AWWA C-509, Clow Model 2639/2640, or approved equal.
- ☐ 14-inch and larger: Butterfly valve, Clow Model 4500, or approved equal.
- ☐ Provide restrained joints on all valve fittings.

VALVE BOXES

- ☐ Three-piece, Tyler Series 6860 with bottom section compatible with valve box stabilizer, or approved equal.
- ☐ Valve box stabilizer: metal "spider" type for gate valves or butterfly valve type by Adaptor, Inc., no substitutions.
- ☐ Provide bituminous coated carbon steel valve operating extension rods with 2-inch square operating nuts terminating within 2 inches below the lid for all main line valves. ~~that are buried deeper than 8 feet from top of pipe.~~
- ☐ Do not extend tracer wire into valve boxes.

TAPPING VALVE AND SLEEVES

- ☐ Two-piece bolted stainless steel type with mechanical joints.
- ☐ Sleeve Model/Manufacturer: Cascade CST extra heavy duty, or approved equal.
- ☐ Valve Model/Manufacturer: Clow F-5093 or Kennedy C950.

WATER SERVICES

- ☐ Pipe: Type K copper tubing or High Density Polyethylene tubing, SDR 9, 200 psi, copper tube sized.
- ☐ Size: 1-inch, 1 ½-inch, and 2-inch.
- ☐ Utilize stainless steel stiffeners of compatible size and connection type.
- ☐ Depth of bury: Between 6-feet and 6.5-feet from main to curb box.
- ☐ Service pipe shall be seamless from the main to the curb box.
- ☐ Service saddles for connecting to PVC pipes: Stainless steel saddle with O-ring and grade 30 rubber grid map; Cascade styles CSC1, CSC2, CS22, or approved equal.
- ☐ Corporation stops: McDonald No. 4701BQ ball valve with AWWA/CC taper thread inlet and compression connection outlet.
- ☐ Curb stops: McDonald No. 6106, or approved equal.
- ☐ Service boxes: Extension type with stationary rods, McDonald No. 5614 for 3/4" and 1" sizes and McDonald No. 5615 for 1-1/2" and 2" sizes.
- ☐ Polywrap service box.
- ☐ Place locator wire on top of water service lines and extend to terminal box adjacent to the service box.

FIRE HYDRANTS

- ☐ Model/Manufacturer: Mueller A-423.
- ☐ Color: Factory painted red with the nozzle caps and operating nut painted silver gray.
- ☐ Nozzle height: 18-inches to 26-inches to finish grade.

- ☐ Equip steamer nozzle with a ~~factory installed~~ 5" Storz Quick Connect.
- ☐ Standard hydrant extensions are required for hydrants with over 6 feet of cover, or where required to adjust nozzle height.
- ☐ Auxiliary valves: Connect directly to water main at an anchor tee.
- ☐ Hydrant lead pipe: ~~Class 52 ductile iron or~~ C-900 PVC with restrained joints.
- ☐ Hydrant leads and fittings: Restrain by Mega-lug gland or approved equal.
- ☐ Provide stop nut or factory-installed means of preventing damage to hydrant when torque is applied to close hydrant.
- ☐ Spacing: Maximum 400 feet (residential subdivisions).
- ☐ Place locator wire terminal boxes at all hydrant locations.
- ☐ ~~Install 3/8" diameter, 5' long fiberglass hydrant marker with spring and reflective bands on all hydrants.~~

STORM SEWER

GENERAL

- ☐ Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- ☐ Consolidation of backfill: 95% standard Proctor density for imported granular material and 100% for excavated material of existing aggregate material in the adjacent trench wall. Use mechanical means, unless allowed otherwise.
- ☐ Provide sump pump connection/storm sewer pipes for all new homes with flexible watertight tee service connector, KOR-N-TEE by NPC Systems, or approved equal.

PIPE MATERIAL

- ☐ Within road right-of-way: Minimum 12-inch reinforced concrete pipe, minimum class III, conforming to ASTM C76 or ASTM C507.
- ☐ Outside road right-of-way: Alternate pipe material, such as HDPE ADS N-12, may be permitted by Village Engineer.
- ☐ Rubber O-ring gasket pipe required.

MANHOLE MATERIALS

- ☐ Design flat top slabs to resist H-20 loading.
- ☐ Frames and closed lids: Heavy duty, indented top solid lid, non-rocking, Neenah R-1580 with Type B lid or approved equal.
- ☐ Frames and open lids: Heavy duty, Neenah R-2504 with Type D grates, or approved equal.
- ☐ Beehive grate manhole covers: Neenah R-2560 E1 or approved equal.
- ☐ Manholes shall be 4'-0" diameter minimum.
- ☐ Joints for manhole riser section shall be made with non-shrink grout, rubber "O"-ring gaskets, a continuous ring of butly rubber sealant (EZ-Stik or Kent Seal in rope form) or approved equal.
- ☐ Adjusting rings and manhole frames shall be set with non-shrink grout or butyl rubber sealant troweled into a 1/4-inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent Seal butyl base sealant in trowelable grade or approved equal.

CATCH BASINS

- ☐ 2'x3' precast concrete box with a minimum 12-inch sump for catch basins in the curb line.
- ☐ 2' diameter precast concrete structure with a minimum 12-inch sump for catch basins in grassed areas.
- ☐ Do not place catch basins within the entire curb return at intersections, if possible.
- ☐ Curb inlet frames: Neenah R-3067-L.
- ☐ Turf area drainage grates: Beehive type, Neenah R-2560 E1 or approved equal.

DRIVEWAY CULVERTS

- ☐ Minimum 15-inch diameter CMP or RCP with flared end sections.

STORM LATERALS

- ☐ Minimum 6-inch PVC SDR-26.
- ☐ Provide wye connections unless allowed otherwise.
- ☐ Terminate lateral pipe with a wooden 2x4 set one foot above finish grade.
- ☐ Lateral pipe locator wire and terminal post: No. 10 AWG single strand insulated copper wire and Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~2-1/2 inch by 18-inch C.P. Test Services – Valvco terminal box.~~

STREET PAVEMENTS

PAVEMENT MARKINGS

- ☐ Epoxy pavement markings required for streets.

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C0.3

VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:

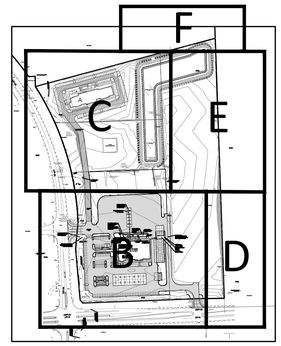
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

1. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 3139503, BY KNIGHT BARRY TITLE, INC., DATED JUNE 21, 2022. AN UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C1.0A

EXISTING SITE AND DEMOLITION PLAN - OVERALL

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

C SHEETS
B SHEETS

C SHEETS
E SHEETS

E SHEETS
B SHEETS

E SHEETS
D SHEETS

B SHEETS
D SHEETS

PROTECT

PROTECT ACCESS & CULVERT UNTIL CONSTRUCTION OF DRIVEWAY ENTRANCE IS NECESSARY. REMOVE & REPLACE CULVERT CONSECUTIVELY. OBTAIN WORK IN ROW PERMITS PRIOR TO CONSTRUCTION.

S05°18'28"W
144.38'

1 ACCESS POINT ALLOWED NORTH OF THIS POINT PER DOT TRANSPORTATION PLAT NO. 1030-23-20-4.06

PROTECT

S05°07'00"E
280.35'

PROTECT

N87°49'48"E 628.00'

PROTECT

PROTECT

SAWCUT & REMOVE ASPHALT & GRAVEL AS NECESSARY FOR DRIVEWAY INSTALLATION. VERIFY LIMITS WITH PROPOSED SITE PLANS OBTAIN WORK IN ROW PERMITS PRIOR TO CONSTRUCTION.

S41°56'34"E 21.47'

WETLAND PERMITTING TO BE COMPLETED CONCURRENTLY WITH PROJECT APPROVALS.

WETLAND/FLOODPLAIN PERMITTING TO BE COMPLETED CONCURRENTLY WITH PROJECT APPROVALS.

BENCHMARK
ARROW ON HYDRANT
ELEV=724.28
(NAVD 88)

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

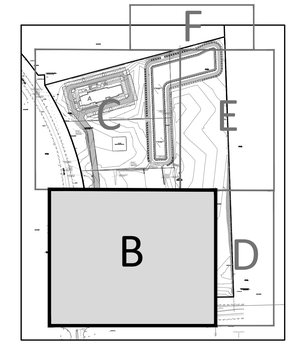
1. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2158653, BY KNIGHT BARRY TITLE, INC., DATED JUNE 27, 2022. AN UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES AND IN CONJUNCTION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT



KEY PLAN
NTS

NORTH

1"= 30'
SCALE
30' 0 30' 60'
FEET

EXISTING SITE AND DEMOLITION PLAN - SOUTHWEST

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C1.0B

L=325.41'
R=1,475.00'
CB=S41°28'23"E
CH=324.75'
Δ=012°38'25"
TAN=S47°47'36"E
TAN=S35°09'11"E

F SHEETS

F SHEETS
C SHEETS

F SHEETS
E SHEETS

C SHEETS
E SHEETS

N74°59'34"E 1,011.29'

N87°48'38"E
34.30'

S01°59'00"E
55.22'

1 ACCESS POINT ALLOWED SOUTH OF THIS POINT PER DOT TRANSPORTATION PLAT NO: 1930-23-20-4.08

CULTIVATION LINE

FLOOD ZONE "AE"

RIGHT OF WAY SIGN

WOODED

CONCRETE RETAINING WALL

FL 42"X66" ELLIPTICAL CONC=717.73

FL 42"X66" ELLIPTICAL CONC=717.25

FL 42"X66" ELLIPTICAL CONC=717.73

FL 42"X66" ELLIPTICAL CONC=717.87

FL 42"X66" ELLIPTICAL CONC=717.87

CONCRETE

FL 42"X66" ELLIPTICAL CONC=717.85

BENCHMARK
CUT SQUARE ON TOP OF CONCRETE PIPE
ELEV=721.99
(NAVD 88)

WETLAND DELINEATION LINE PER EVERGREEN CONSULTANTS LLC

GRAVEL

GRASS

GRASS

ARROW SIGN

ASPHALT

FLOOD ZONE "AE"

FIELD

FLOOD ZONE
"X"-UNSHADED

WETLAND/FLOODPLAIN
PERMITTING TO BE
COMPLETED CONCURRENTLY
WITH PROJECT APPROVALS.

WETLAND DELINEATION LINE PER EVERGREEN CONSULTANTS LLC

FLOOD ZONE "AE"

CULTIVATION LINE

GRAVEL

100 YEAR FLOODPLAIN LINE PER FEMA MAP NO. 55059C0064D DATED JUNE 6, 2012

L=782.01'
R=1475.00'
CB=S17°26'33"E
CH=772.88'
Δ=030°22'36"
TAN=S32°37'51"E
TAN=S02°15'15"E

FIELD

FLOOD ZONE "AE"

JUNCTION CTH 'E' SIGN

WOODED

FLOOD ZONE
"X"-UNSHADED

STOP AHEAD SIGN

120TH AVE.

BEGIN RIGHT TURN LANE SIGN

GRASS

GRASS

WETLAND DELINEATION LINE PER EVERGREEN CONSULTANTS LLC

GRAVEL

C SHEETS
B SHEETS

C SHEETS
E SHEETS

NORTH

1" = 30'
30' 0 30' 60'
SCALE FEET

SPECIFICATION NOTE:

SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

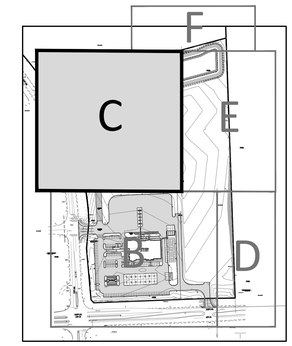
1. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.

NOTE:
1. PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2138603, BY KNIGHT BARRY TITLE, INC., DATED JUNE 27, 2022. AN UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.0C

EXISTING SITE AND DEMOLITION PLAN - NORTHWEST

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

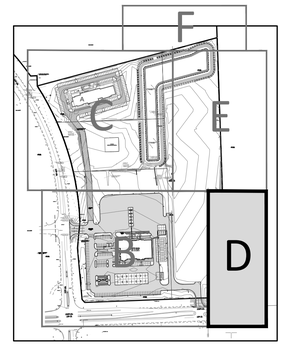
1. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2158603, BY KNIGHT BARRY TITLE, INC., DATED JUNE 27, 2022. AN UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT



KEY PLAN
NTS

NORTH
1"= 30'
30' 0 30' 60'
SCALE FEET

EXISTING SITE AND DEMOLITION PLAN - SOUTHEAST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

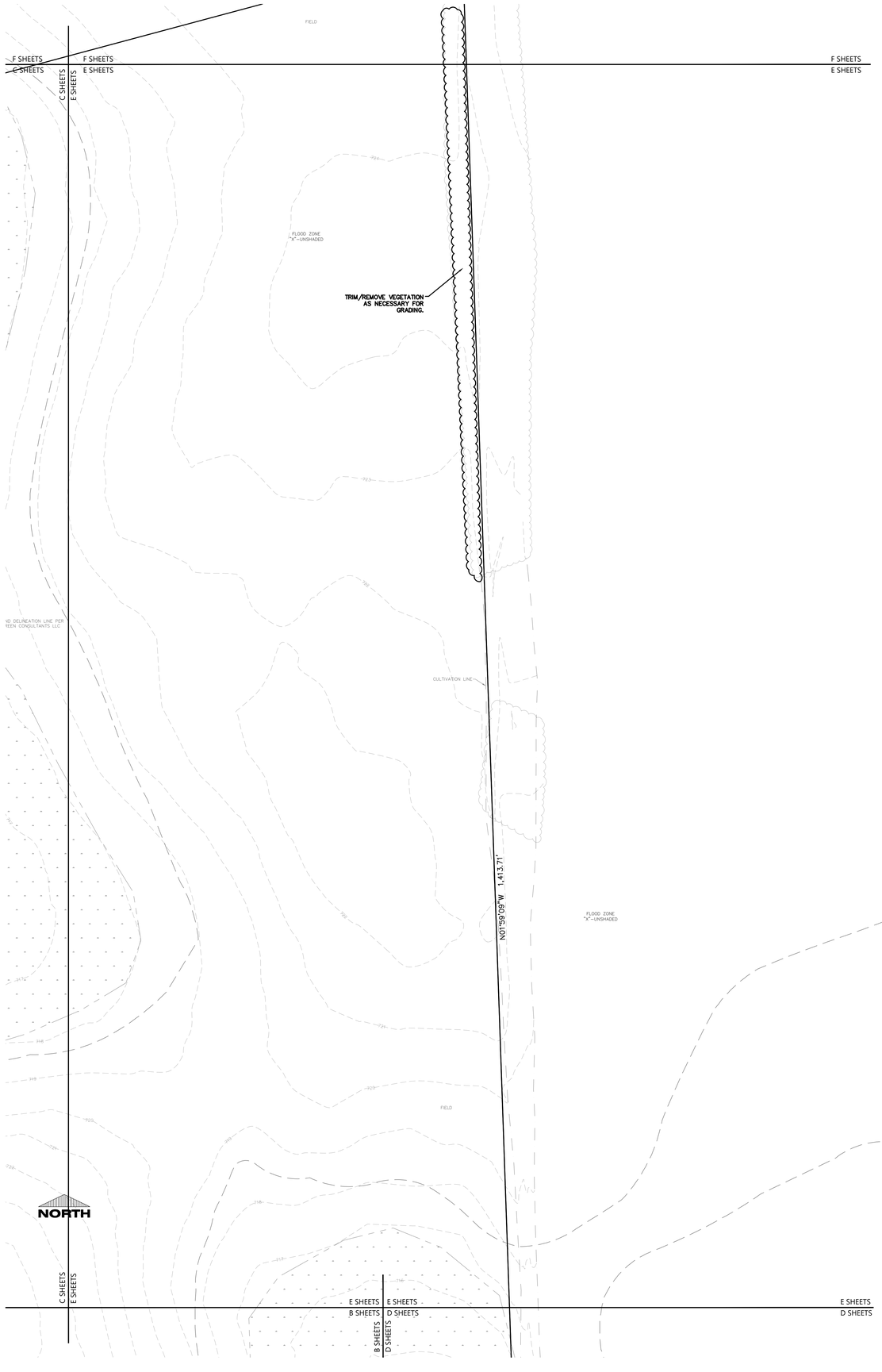
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C1.0D



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

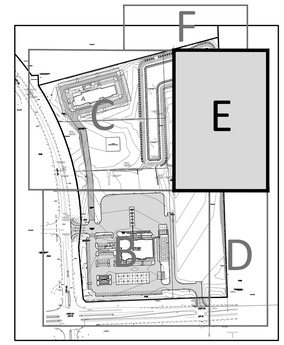
1. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.

NOTE:
PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAN WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2158603, BY KNIGHT BARRY TITLE, INC., DATED JUNE 27, 2022. AN UPDATED PLAT OF SURVEY OR ALTA SURVEY HAS NOT BEEN AUTHORIZED AND THE PROPERTY LINES SHOWN ON THIS PLAN MAY BE INCOMPLETE OR IN ERROR.

NOTE:
SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS ON THE SURVEYED PARCEL HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES CRITICAL TO CONSTRUCTION.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

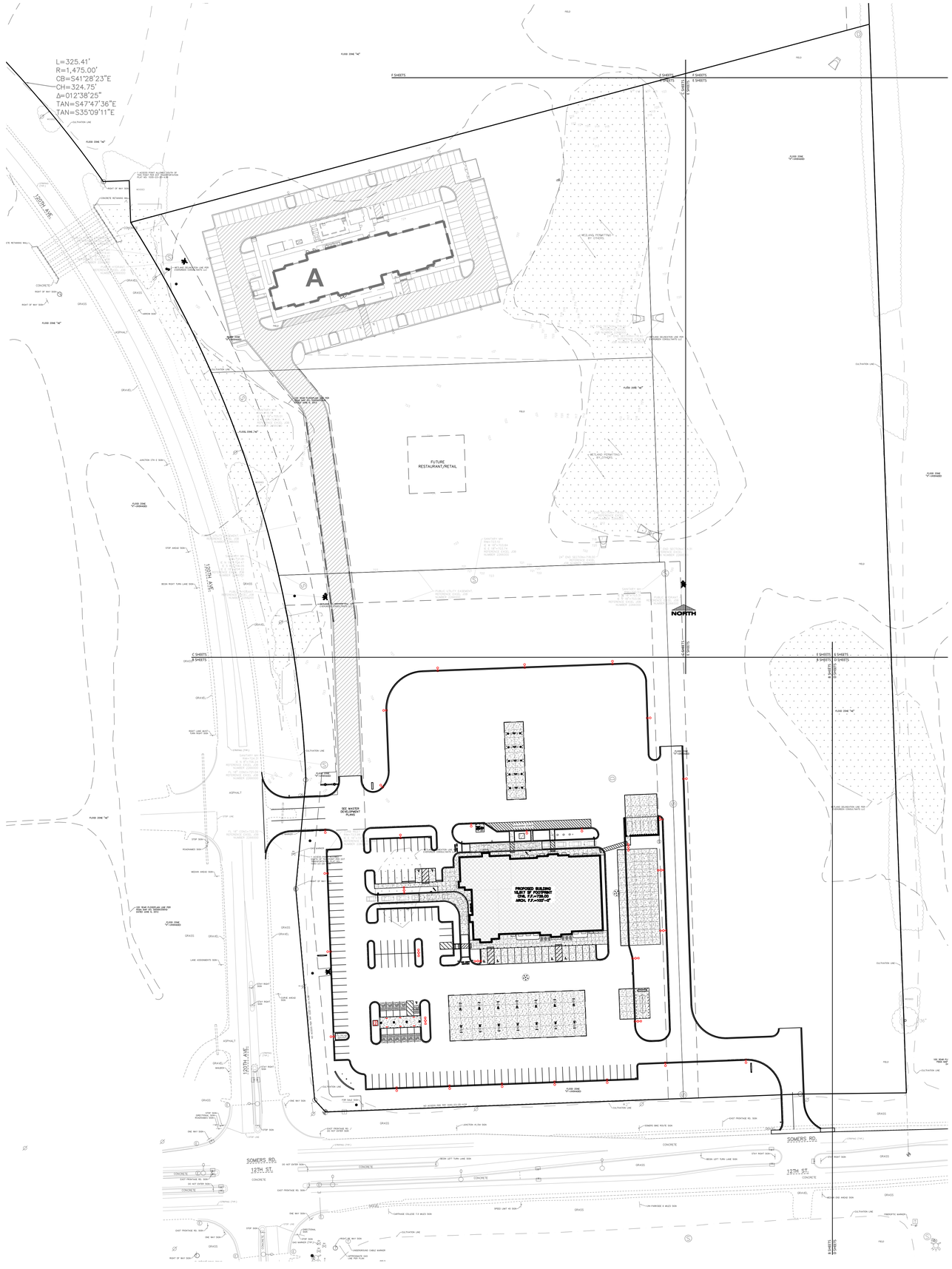
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.0E

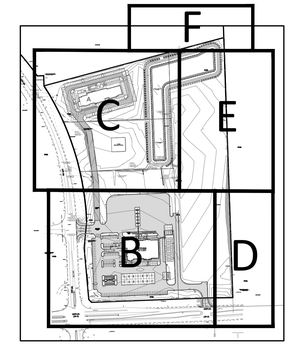
NORTH
1"= 30'
SCALE
30' 0 30' 60'
FEET

EXISTING SITE AND DEMOLITION PLAN -NORTHEAST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

WISCONSIN

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

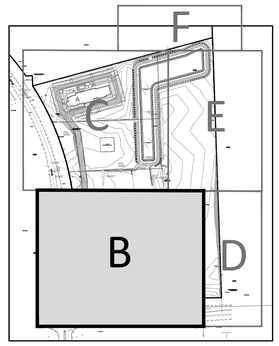
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.1A

NORTH
60' 0 60' 120'
1"= 60'
SCALE FEET

SITE PLAN - OVERALL
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



KEY PLAN
NTS

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

GENERAL PROJECT NOTES

1. ALL DRIVEWAYS AND CURB CUTS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS FROM ALL REQUIRED ENTITIES.
3. CONTRACTOR TO COORDINATE WITH EXCEL ENGINEERING FOR COMPLETION OF FOUNDATION SURVEY PER VILLAGE OF SOMERS REQUIREMENTS AS FOLLOWS: ANY PERSON ERECTING, MOVING, ENLARGING OR RECONSTRUCTING A STRUCTURE, WHICH, UNDER THIS ORDINANCE, REQUIRES A ZONING PERMIT SHALL UPON COMPLETION OF THE CONSTRUCTION OF FOOTINGS, CONCRETE SLAB OR OTHER FOUNDATIONS, SUBMIT TO THE DEPARTMENT OF PLANNING AND DEVELOPMENT A SURVEY PREPARED BY A REGISTERED LAND SURVEYOR SHOWING THE LOCATIONS, BOUNDARIES, DIMENSIONS, ELEVATIONS AND SIZE OF THE FOLLOWING: THE BOUNDARIES OF THE LOT, ALL EXISTING STRUCTURES (INCLUDING FOUNDATIONS) AND THEIR RELATIONSHIP TO THE LOT LINES. THE VILLAGE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL COMPARE THE LOCATION OF ALL NEW OR EXTENDED FOUNDATIONS WITH THE LOCATION OF ALL PROPOSED CONSTRUCTION ACTIVITY REPORTED ON THE PERMIT APPLICATION. NO FURTHER CONSTRUCTION MAY COMMENCE UNLESS THE DIRECTOR OF PLANNING AND DEVELOPMENT SHALL FIND THAT THE FOUNDATION LOCATION IS CONSISTENT WITH THE PERMIT AS ISSUED AND SHALL SO CERTIFY. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION SHALL BE GROUNDS FOR THE ISSUANCE OF A CITATION PURSUANT TO SECTION ZN 6.03(3) OF THIS ORDINANCE, AND ATTENDANT PENALTIES.

SITE INFORMATION:

OVERALL PROPERTY: LOT 1 OF CERTIFIED SURVEY MAP NUMBER 3050 BEING PART OF THE NW ¼, NE ¼, AND SE ¼ OF THE SW ¼, S7, T2N, R22E, VILLAGE OF SOMERS, KENOSHA COUNTY, WISCONSIN AS DOCUMENT NUMBER 1948190

PROPERTY AREA – OVERALL: 1,089,000 S.F. (25.000 ACRES).

PROPOSED LOT 1 PROPERTY AREA: 350,969 S.F. (8.057 ACRES).

EXISTING ZONING: A4

PROPOSED ZONING: B3 W/ PUD (LOT 1/4); A4 (LOT 2/3)

PROPOSED USE: LOT 1 – FUEL STATION, C STORE, QUICK SERVE RESTAURANTS (2)

AREA OF SITE DISTURBANCE: ±26 ACRES

SETBACKS: BUILDING: FRONT = 65'
SIDE = 15'
REAR = 25'

PAVEMENT: FRONT = 20'
SIDE = 10'
REAR = 10'

PROPOSED BUILDING HEIGHT: 26'–0" (MAX. HEIGHT ALLOWED: 35'–0")

PARKING REQUIRED:
GAS STATION/STORE AND RESTAURANT: 1 SPACE PER 150 S.F. (98 SPACES REQ.)
EMPLOYEES: 1 SPACE PER EMPLOYEE ON LARGEST WORK SHIFT (10 SPACES REQ.)
TOTAL: 108 SPACES REQUIRED

PARKING PROVIDED: 139 SPACE (6 H.C. ACCESSIBLE)

DRIVE–THRU STACKING REQUIRED: 8 VEHICLES (160') PROVIDED: 8 VEHICLES EACH

HANDICAP STALLS REQUIRED: 5, HANDICAP STALLS PROVIDED: 6

HOURS OF OPERATION: 24/7

BUILDING OCCUPANCY CLASSIFICATION = A2, B, M, S1

CLASS OF BUILDING CONSTRUCTION = IIB

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO: 15%
MAXIMUM IMPERVIOUS SURFACE: 85%

SITE PLAN KEYNOTES

8	CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR FINAL LOCATIONS
10	FLUSH WALK W/ BOLLARDS (TYP.)
11	TAPER ASPHALT/CONCRETE 0" TO 6" IN 10'
11A	TAPER WALK 0" TO 6" IN 18'
13	CURB RAMP (TYP.)
14	18" CURB & GUTTER (TYP.)
15	18" MOUNTABLE CURB & GUTTER (TYP.)
16	TAPER CURB (TYP.)
17	CURB CUT (TYP.)
18	CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION PRIOR TO CONSTRUCTION)
19	HANDICAP PIPE BOLLARD (TYP)
20	HANDICAP STALL & STRIPING PER STATE CODES.
21	MONUMENT SIGN (FINAL DETAILS, LOCATION, & APPROVAL BY SIGN VENDOR)
22	PYLON SIGN (FINAL DETAILS, LOCATION, & APPROVAL BY SIGN VENDOR)
23	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
24	6" CONCRETE BOLLARDS (TYP)
25	STOP SIGN (TYP.)
26	FLAGPOLES – FINAL TYPE, COLOR, HEIGHT, LOCATION, ETC. BY SUPPLIER IN COORDINATION W/ OWNER. (2) 25' OUTSIDE POLES & (1) 30' INSIDE POLE
28	DETECTABLE WARNING PLATE
29	TRAFFIC FLOW ARROWS. COLOR TO MATCH PARKING STALL STRIPING.
30	DIRECTIONAL SIGNAGE. FINAL DETAILS BY SIGN SUPPLIER
33	DRIVE–THRU MENU BOARD (SEE TENANT'S SPECS)
34	DRIVE–THRU ORDER SCREEN (SEE TENANT'S SPECS)
35	DO NOT ENTER SIGN & PAVEMENT MARKINGS (TYP.)
40	PAVEMENT MARKINGS (TYP)
41	REMOTE FDC & HYDRANT CONCRETE PUMPER PAD (PER VILLAGE DETAIL)
43	CONCRETE TANKAGE PAD (TYP). VERIFY PAD/TANK DESIGN/SIZE/LAYOUT WITH CONTRACTOR AND TANK SUPPLIER PRIOR TO CONSTRUCTION.
44	CUSTOMER PRODUCT STORAGE (TYP). VERIFY FINAL LOCATIONS OF ICE CHEST FREEZERS, FIREWOOD STORAGE, PROPANE TANK STORAGE, ETC. W/ OWNER & SUPPLIERS PRIOR TO CONSTRUCTION.
45	PUMP CANOPY (TYP). VERIFY FINAL SIZE & DESIGN WITH CONTRACTOR/PUMP & CANOPY SUPPLIER PRIOR TO CONSTRUCTION.
46	ELECTRIC VEHICLE CHARGING AREA & CANOPY (TYP). VERIFY FINAL DESIGN & DETAILS WITH ELECTRIC VEHICLE SUPPLIER PRIOR TO CONSTRUCTION.
47	OVERHEAD SHADE STRUCTURE (TYP). SEE ARCH PLANS FOR DETAILS.
48	BUILDING CANOPY (TYP). SEE ARCH PLANS FOR DETAILS.
49	DRIVE–THRU CLEARANCE BAR (DETAIL BY SUPPLIER)
50	FLOW THROUGH CURB (SEE DETAIL)

x(X) IDENTIFICATION: KEYNOTE ITEM(QUANTITY) – IF NO () = QUANTITY IS 1

PAVEMENT HATCH KEY:
- STANDARD ASPHALT
- HEAVY DUTY ASPHALT
- SIDEWALK CONCRETE
- LIGHT DUTY CONCRETE
- HEAVY DUTY CONCRETE
- DUMPSTER PAD CONCRETE

CURB & GUTTER MARKING KEY:
- INVERTED CURB & GUTTER
- SHEDDING CURB & GUTTER

1"= 30' SCALE 30' 0 30' 60' FEET

NORTH

SITE PLAN - SOUTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

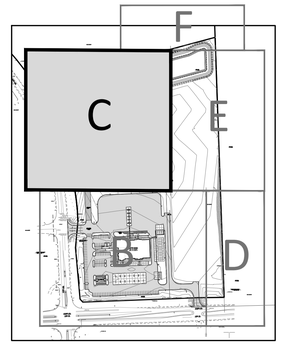
PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

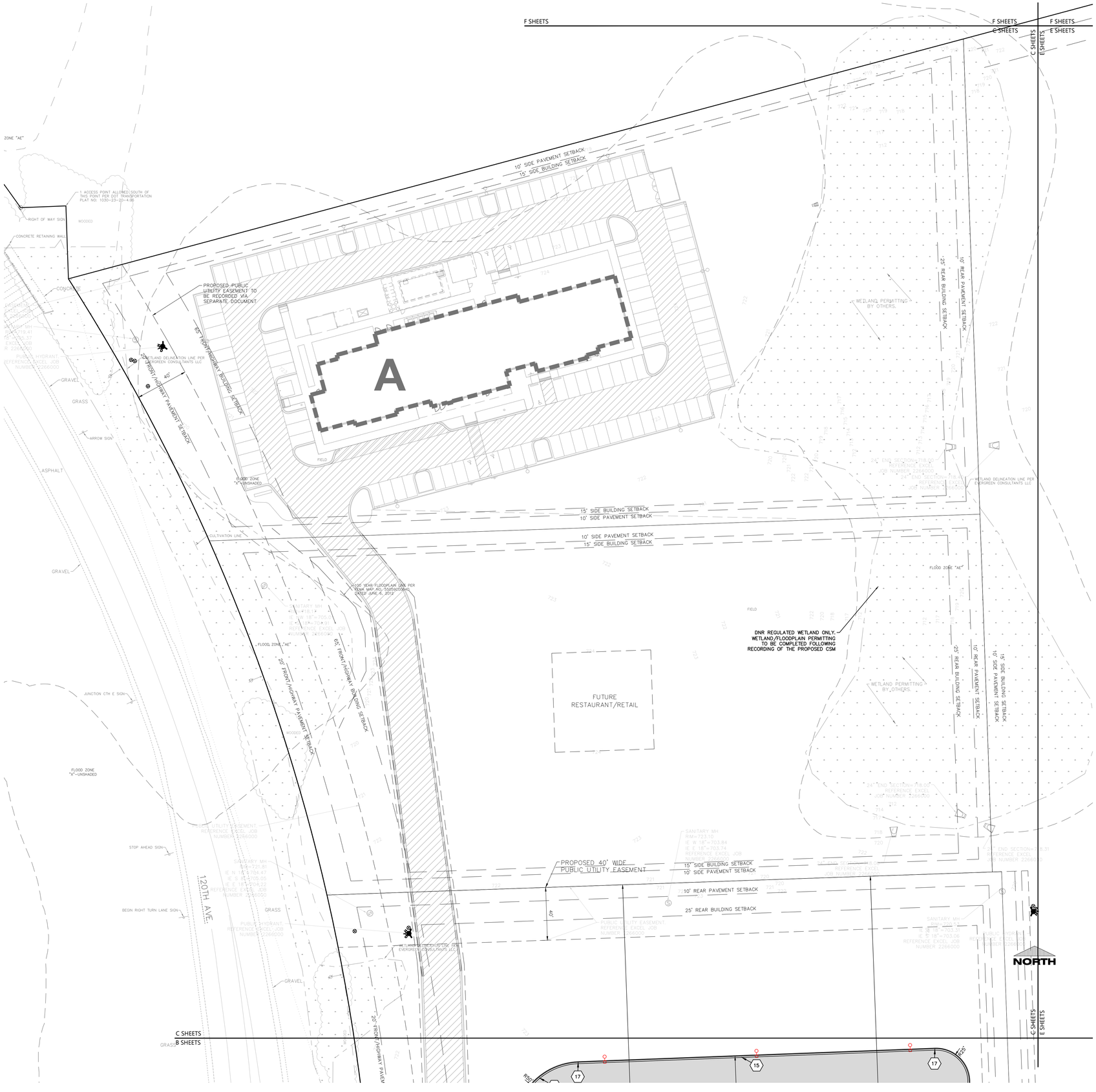
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.1B

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS



Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

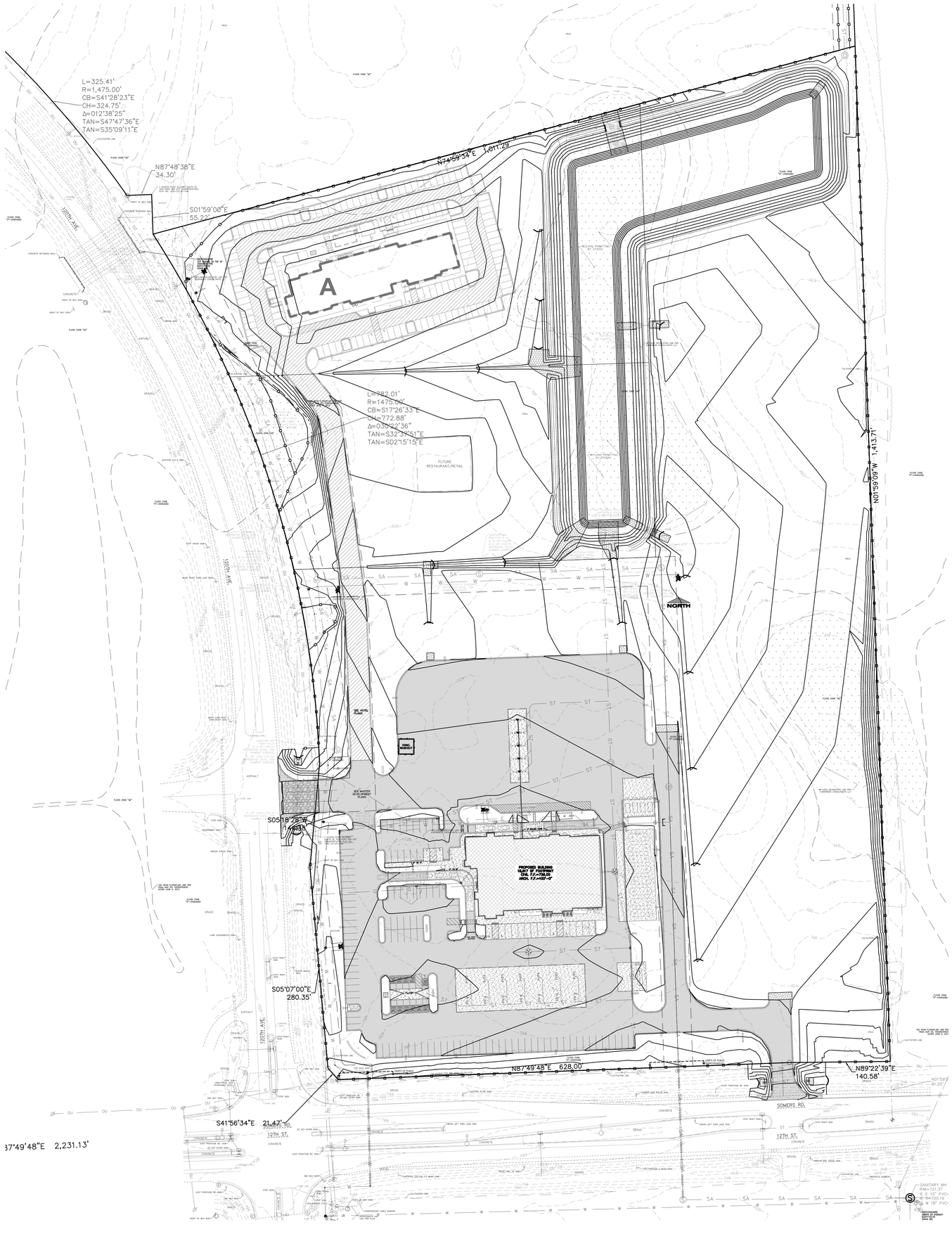
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.1C

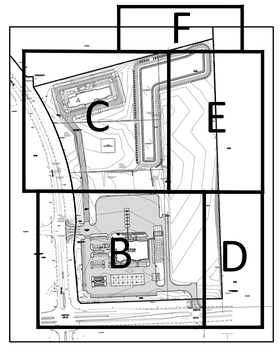
NORTH
1"= 30' SCALE
30' 0 30' 60' FEET

SITE PLAN - NORTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

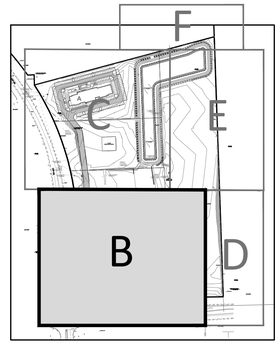
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.2A

NORTH
1"= 60' SCALE
60' 0 60' 120' FEET

GRADING AND EROSION CONTROL PLAN - OVERALL
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

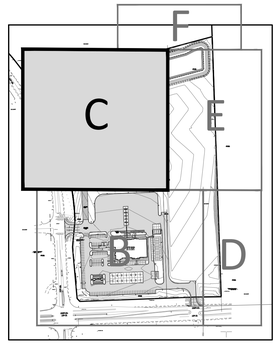
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.2B

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

GRADING AND EROSION CONTROL PLAN - SOUTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

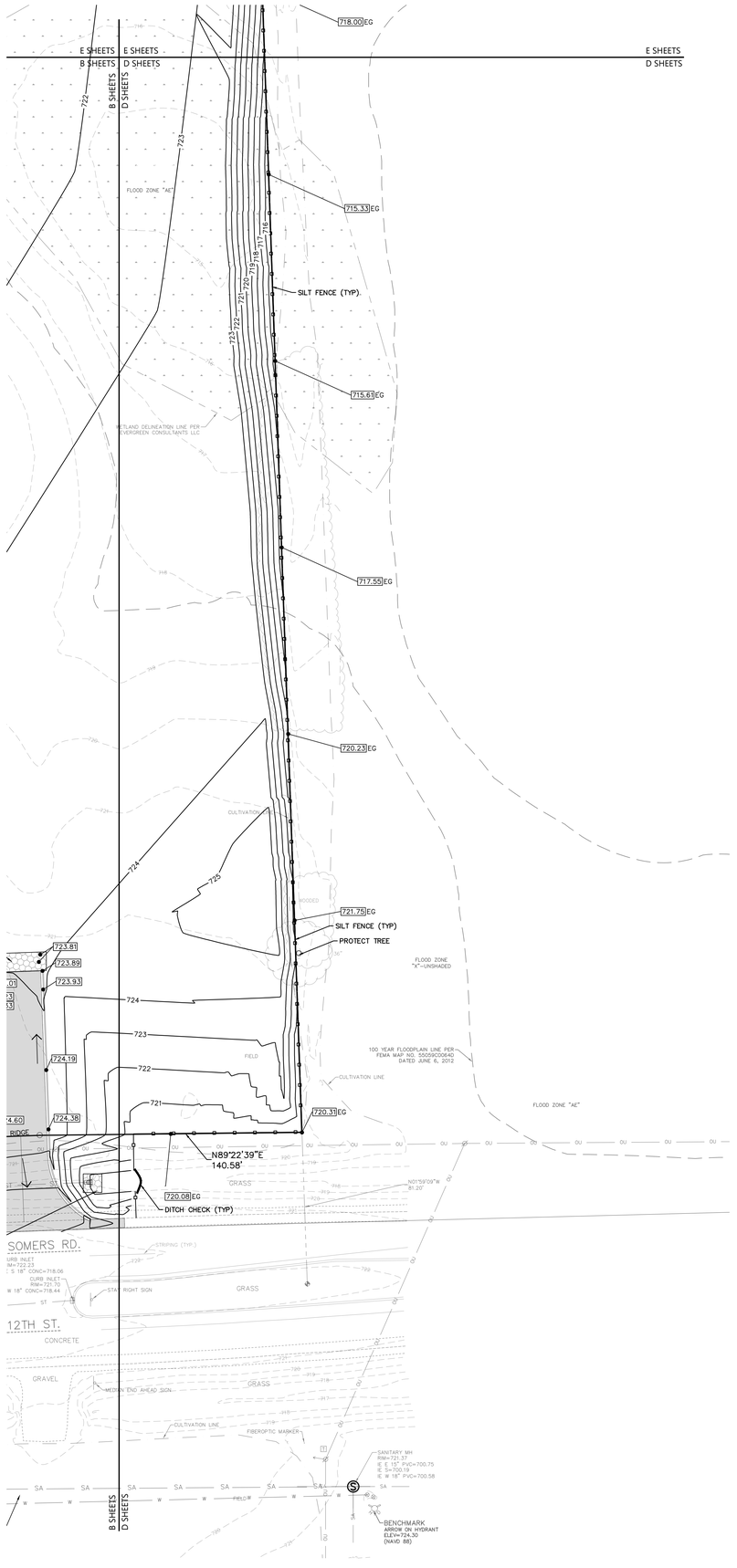
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

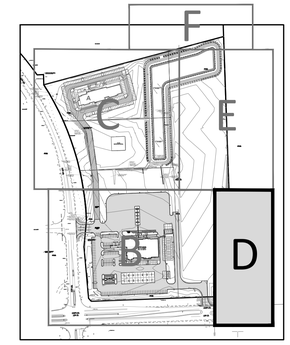
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C1.2C

GRADING AND EROSION CONTROL PLAN - NORTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

GRADING AND EROSION CONTROL PLAN - SOUTHEAST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

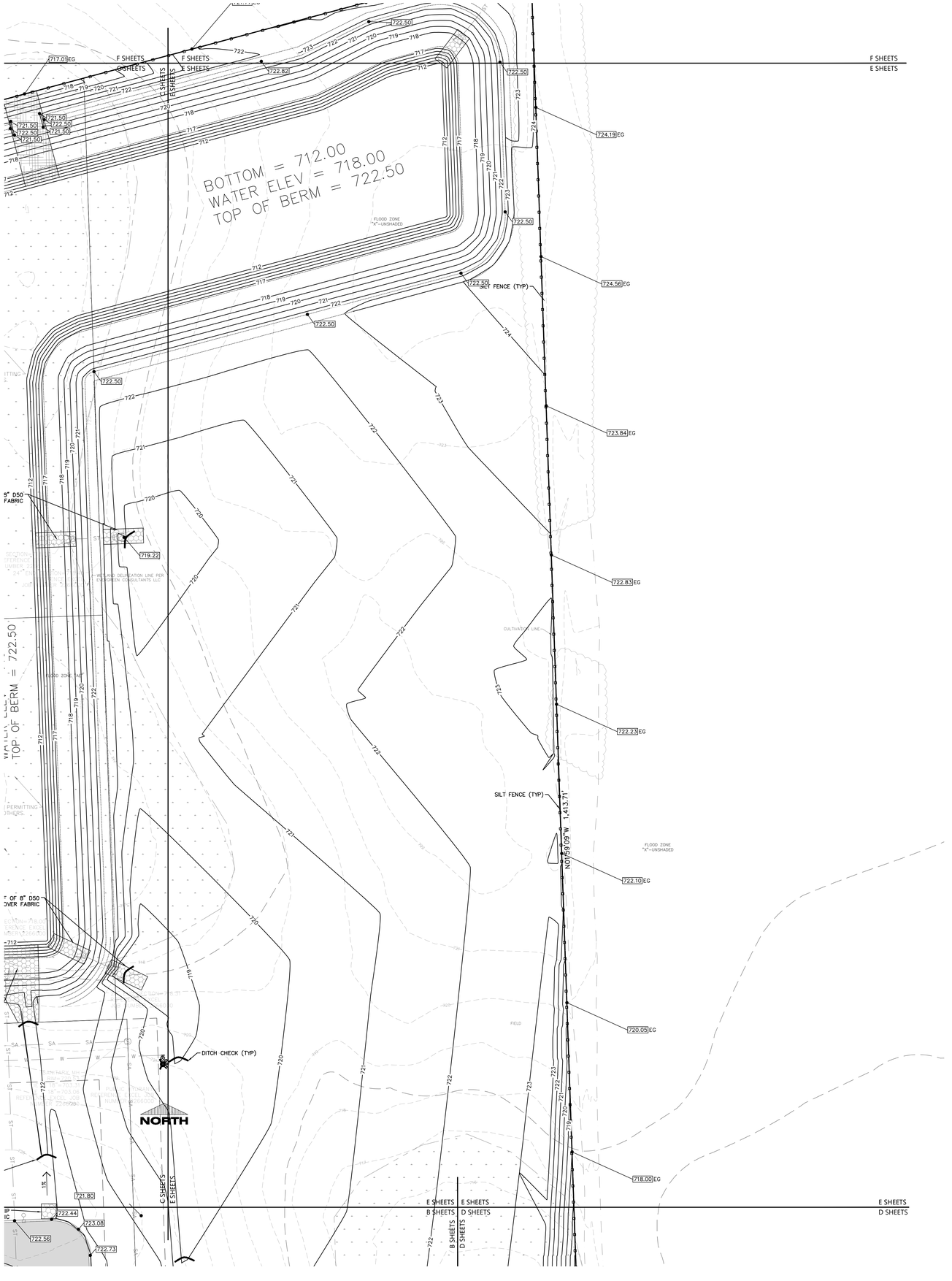
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

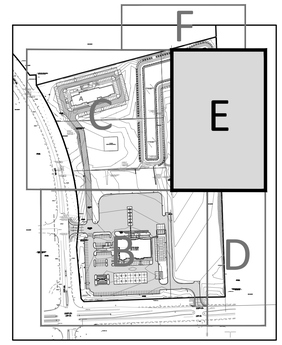
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C1.2D



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

GRADING AND EROSION CONTROL PLAN - NORTHEAST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

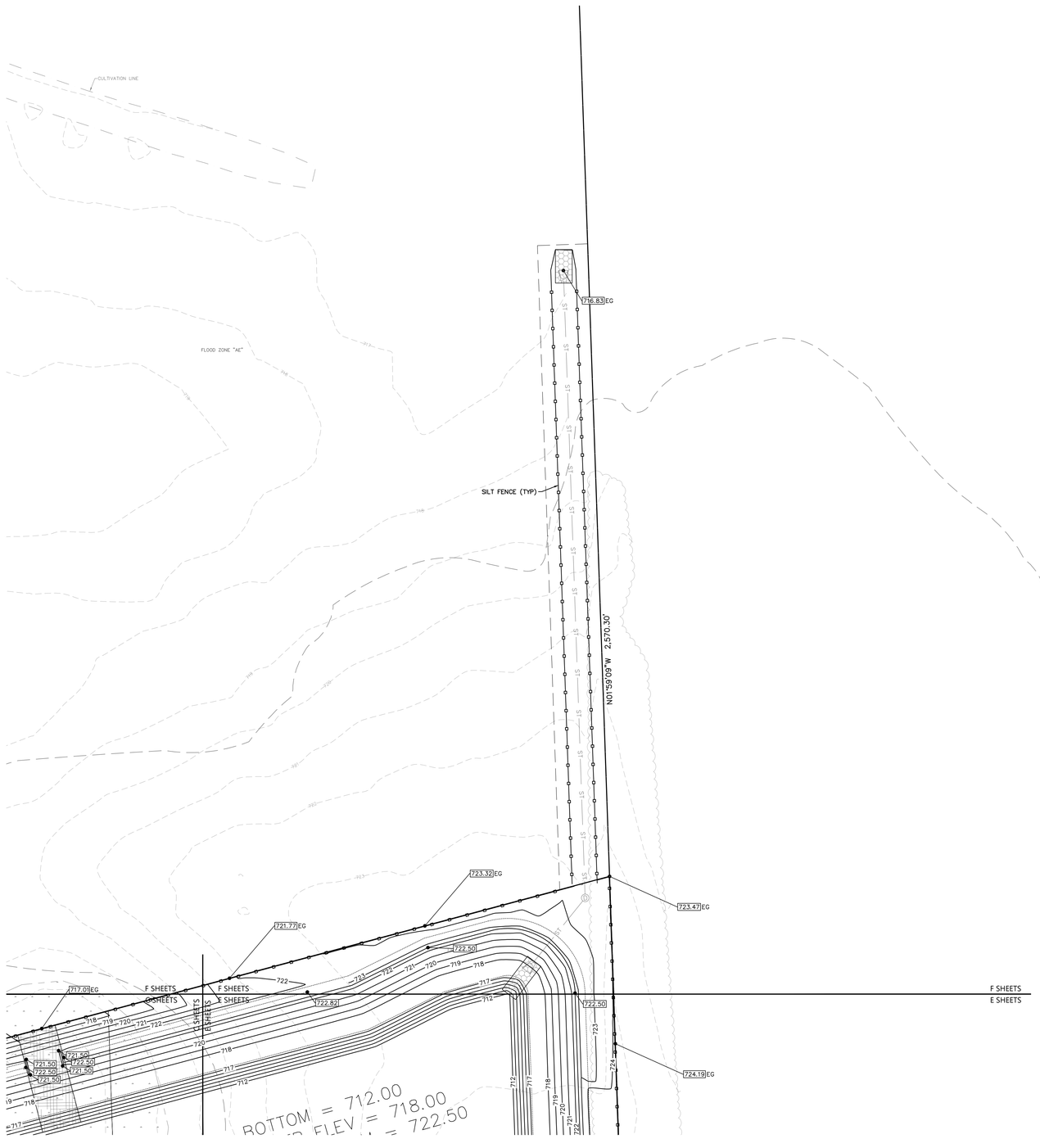
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

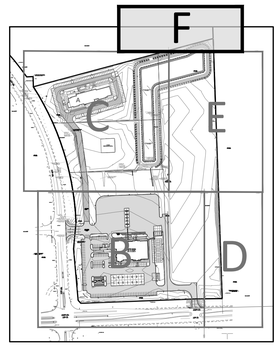
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.2E



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION).
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

NORTH

17= 30' SCALE 30' 0 30' 60' FEET

GRADING AND EROSION CONTROL PLAN - NORTH

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

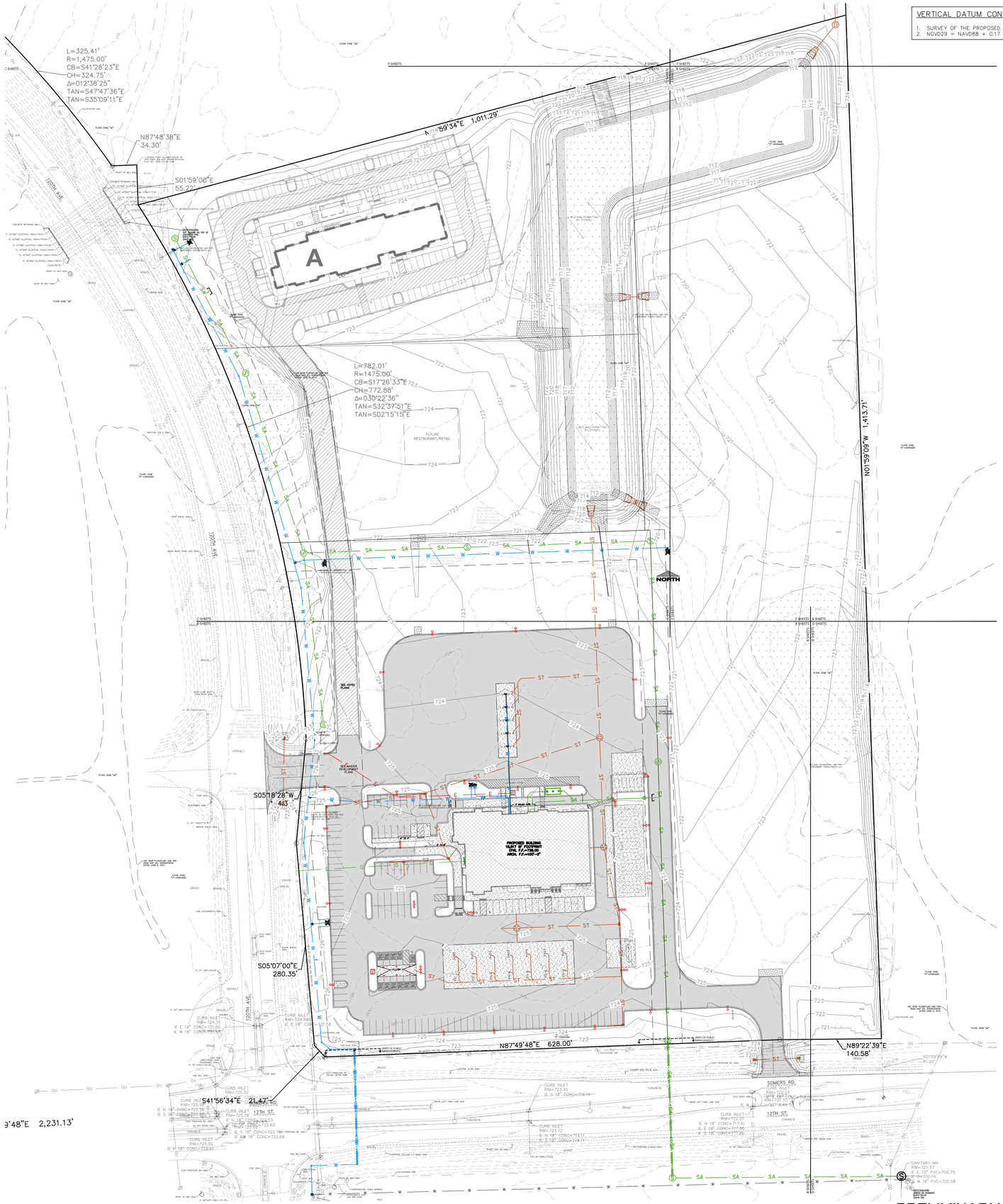
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

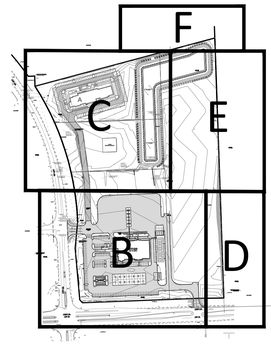
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.2F



VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

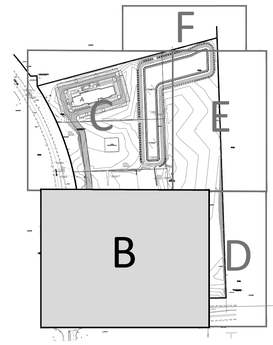
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.3A

UTILITY PLAN - OVERALL
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

DOWNSPOUT NOTE:
DS = DENOTES DOWNSPOUT TO GRADE LOCATIONS. PROVIDE SPLASH BLOCKS AT ALL DS TO GRADE LOCATIONS. SEE ARCH PLANS FOR FINAL LOCATIONS.

CLEANOUT NOTE:
CO = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL CLEANOUTS, SEE C0.2 FOR SPECIFICATION.

OIL/GREASE INLET PROTECTION NOTE:
O/G = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL FLEX STORM PURE FILTER OR EQ.

LIGHTPOLE NOTE:
PROVIDE TWO (2) CONDUITS AT EACH LIGHT POLE;
ONE (1) FOR POWER,
ONE (1) FOR LOW VOLTAGE FOR SECURITY CAMERAS

VERTICAL DATUM CONVERSION
1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR: GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

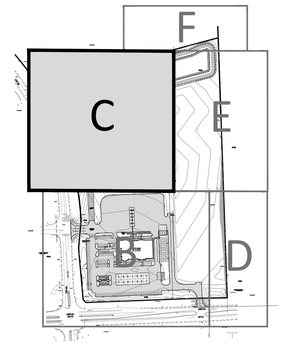
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C1.3B

NORTH
1"= 30'
SCALE
30' 0 30' 60'
FEET

UTILITY PLAN - SOUTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024

NORTH
1"= 30' SCALE
30' 0 30' 60' FEET

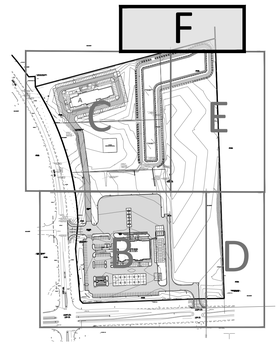
UTILITY PLAN - NORTHWEST
EXCEL JOB #: 2266000
SHEET: C1.3C

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

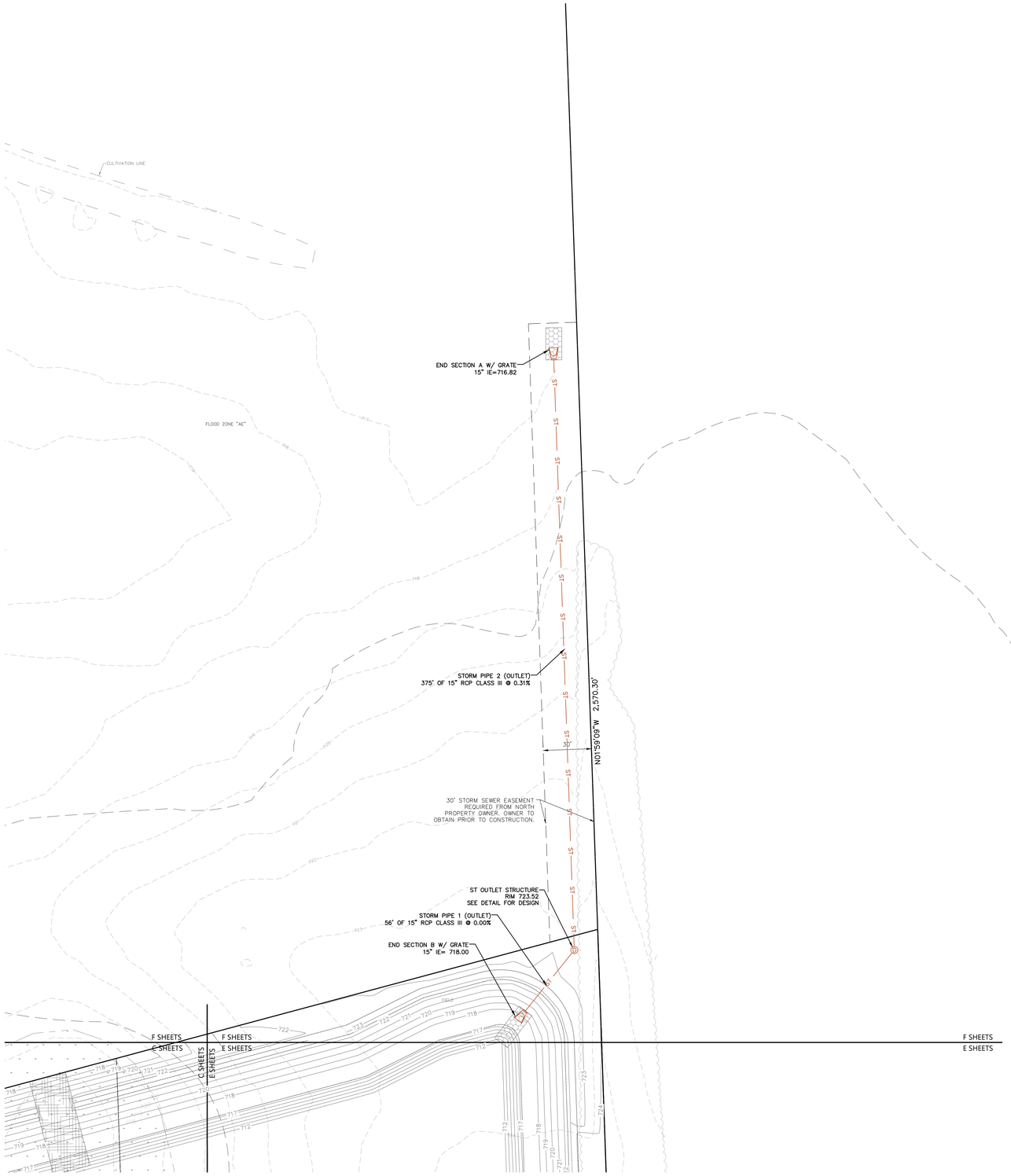
VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS



NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

UTILITY PLAN - NORTH

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

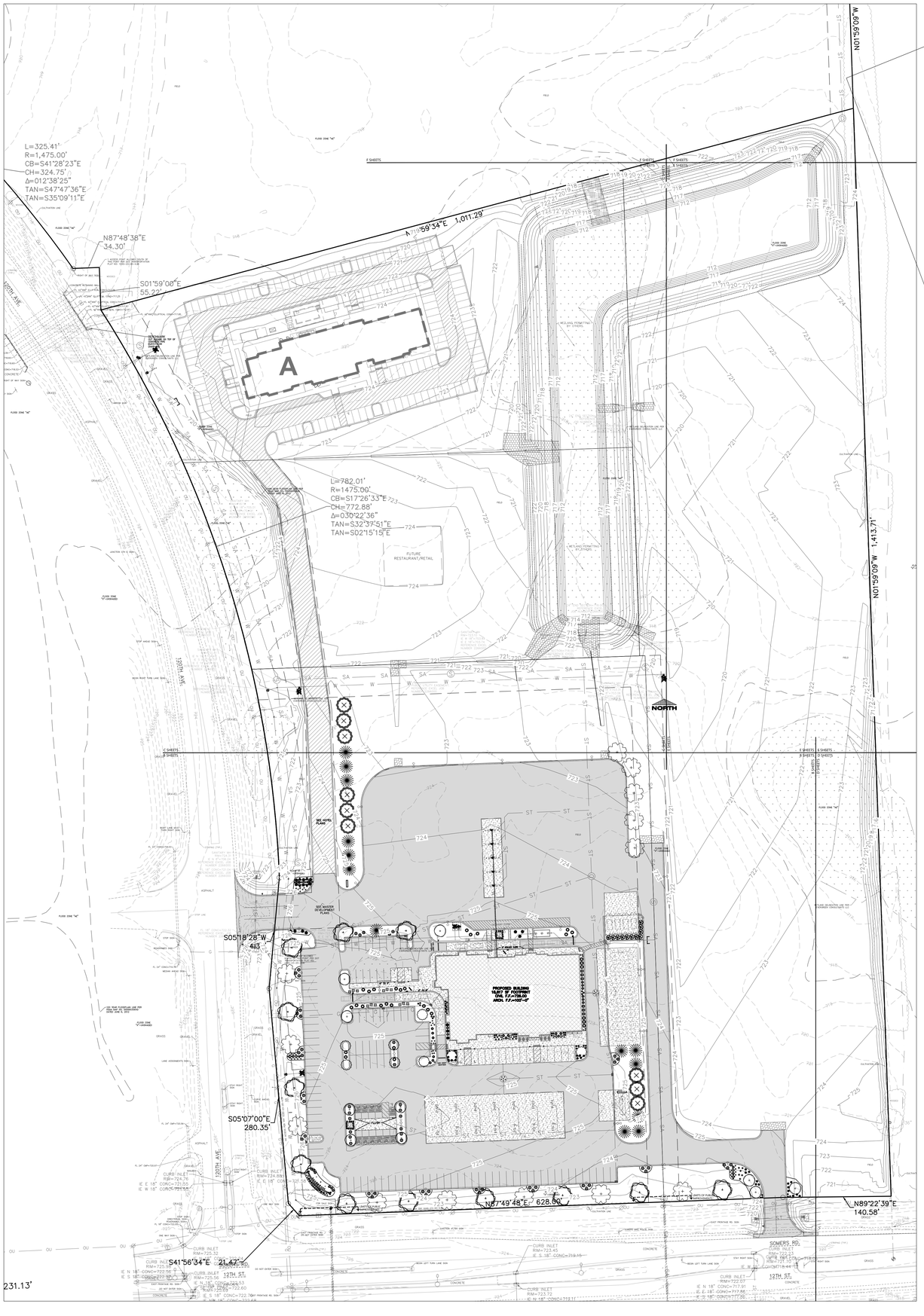
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

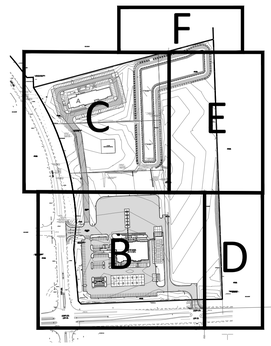
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: _____
SUPERVISOR: _____
PRELIMINARY NO: P22188
CONTRACT NO: _____
DATE: APR. 26, 2024
SHEET: C1.3F



VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.4A

NORTH
1" = 60'
SCALE
60' 0 60' 120'
FEET

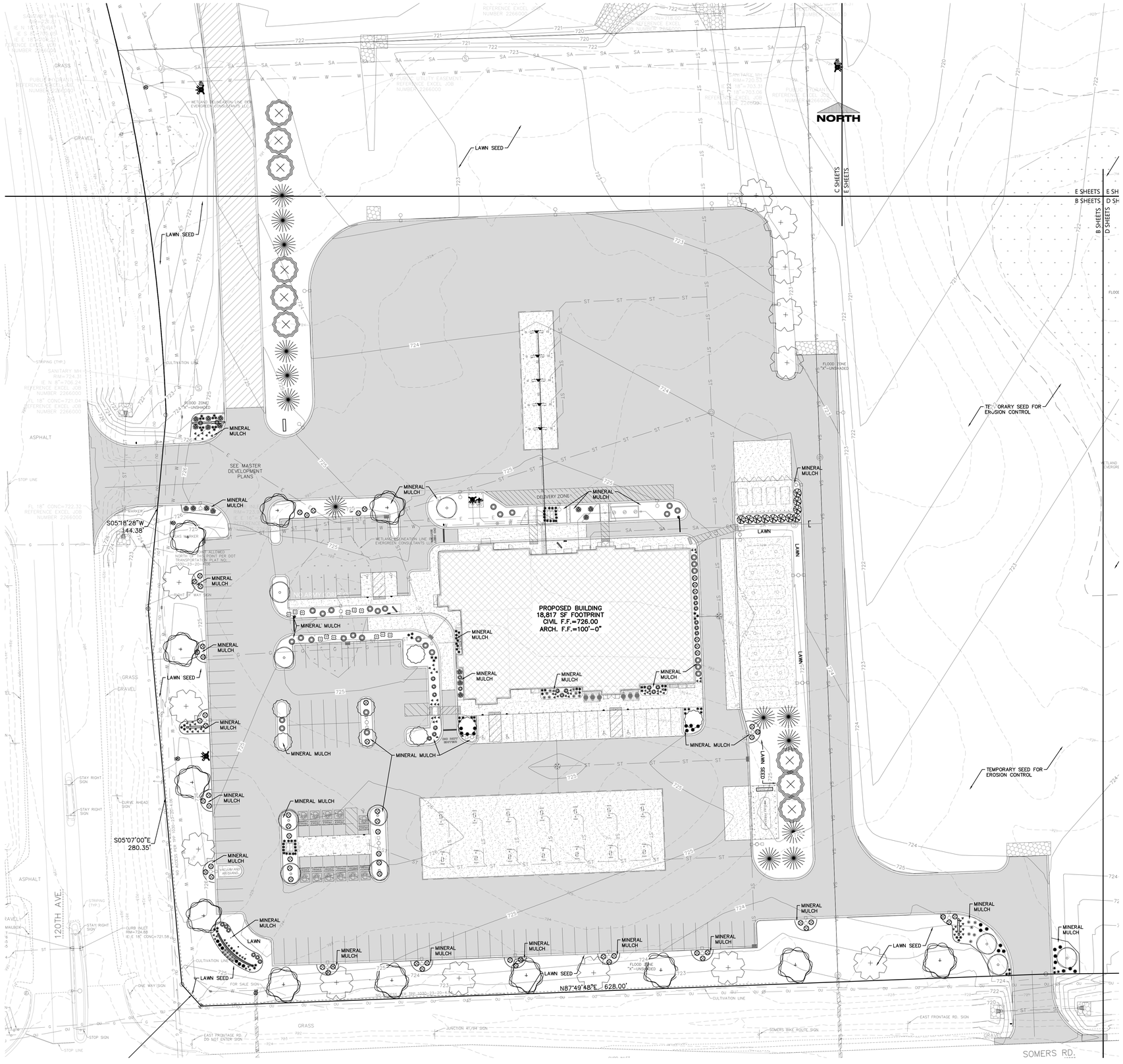
LANDSCAPE AND RESTORATION PLAN - OVERALL
EXCEL JOB #: 2266000

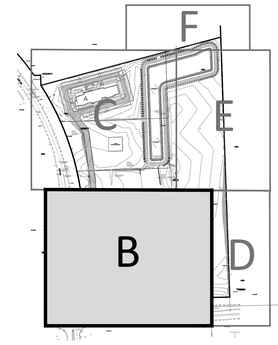
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS





KEY PLAN
NTS

LANDSCAPING NOTES

SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
	DECIDUOUS TREES			
	Skyline Honeylocust	Gleditsia triacanthos 'Skyline'	2"	12
	Redmond Linden	Tilia americana	2"	13
	Flowering Crabapple (Spring Snow)	Malus x hybrid (Spring Snow)	2"	8
	Japanese Tree Lilac	Syringa reticulata	5' tall	10
	EVERGREEN TREES			
	Black Hills Spruce	Picea glauca	6'	13
	Austrian Pine	Pinus nigra	4'	9
	DECIDUOUS SHRUBS			
	Weigela Carnaval	Weigela Florida 'courtalor'	24"	16
	Goldmound Spirea	Spiraea x bumalda 'Goldmound'	24"	12
	Shrub Roses	Explorer series 'Alex Mackenzie'	1 gal pot	26
	Sunrise Forsythia	Forsythia 'Sunrise'	18"–24"	31
	EVERGREEN SHRUBS			
	Techny Arborvitae	Thuja occidentalis	48"	11
	Wintergreen Boxwood	Buxus microphylla var. 'Wintergreen'	42"–48"	65
	PERENNIALS			
	Karl Foerster Reed Grass	Calamagrostis x acutiflora 'Karl Foerster'	1 gal pot	105
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	83
	Oriental Lily – Friso	Lilium	1 gal pot	29
	Creeping Broadleaf Sedge	Carex siderosticha	1 gal pot	24

LANDSCAPING CALCULATIONS

ZONE	REQ. PLANTS	PLANTS PROVIDED
OPEN YARD AREA (EXTERIOR)	1 DECIDUOUS/EVERGREEN TREE PER 1,000 SF MIN. 160 SF ISLAND SIZE 64,040 SF/1,000 SF = 65 TREES	12 EVERGREEN & 5 DECIDUOUS TREES PROVIDED
OPEN YARD AREA (INTERIOR)	1 DECIDUOUS/EVERGREEN TREE PER 1,000 SF MIN. 160 SF ISLAND SIZE 15,911 SF/1,000 SF = 16 TREES	8 EVERGREEN 12 DECIDUOUS 14 (7) ORNAMENTAL 27 PROVIDED
BUILDING FOUNDATION	1 ORNAMENTAL TREE OR 2 SHRUBS PER 20' 645'/20'=33 TREES OR 66 SHRUBS	29 EVERGREEN/DECIDUOUS SHRUBS 59 PERENNIALS
STREET FRONTAGE (SOUTH)	1 EVERGREEN/DECIDUOUS TREE PER 50' 2 ORNAMENTAL TREES OR 2 SHRUBS=1 TREE 499'/50'= 10 EVERGREEN/DECIDUOUS TREES	9 DECIDUOUS TREES (3) 2 EVERGREEN/DECIDUOUS SHRUBS (1) 10 PROVIDED
STREET FRONTAGE (WEST)	1 EVERGREEN/DECIDUOUS TREE PER 50' 2 ORNAMENTAL TREES OR 2 SHRUBS=1 TREE 699'/50'= 14 EVERGREEN/DECIDUOUS TREES	7 DECIDUOUS TREES 14 EVERGREEN/DECIDUOUS SHRUBS (7) 14 PROVIDED
PARKING LOT (WEST)	1 EVERGREEN/DECIDUOUS TREE PER 25' 2 ORNAMENTAL TREES OR 4 SHRUBS=1 TREE 279'/25' = 12 EVERGREEN/DECIDUOUS TREES	15 SHRUBS (4) & STREET TREES
PARKING LOT (SOUTH)	1 EVERGREEN/DECIDUOUS TREE PER 25' 2 ORNAMENTAL TREES OR 4 SHRUBS=1 TREE 360'/25' = 15 EVERGREEN/DECIDUOUS TREES	15 SHRUBS (4) & STREET TREES
PARKING LOT (INTERIOR)	EVERY INTERNAL LANDSCAPE ISLAND SHALL CONTAIN AT LEAST ONE DECIDUOUS OR EVERGREEN TREE	PROVIDED

TOTALS IN () ARE TRUE EQUIVALENTS

NORTH
1"= 30'
30' 0 30' 60'
SCALE FEET

LANDSCAPE AND RESTORATION PLAN - SOUTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

SOMERS GATEWAY CENTER
WISCONSIN

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

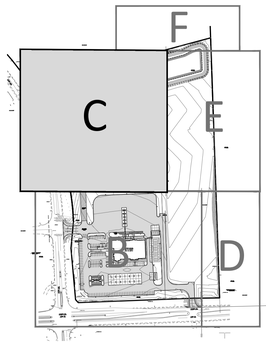
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.4B

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

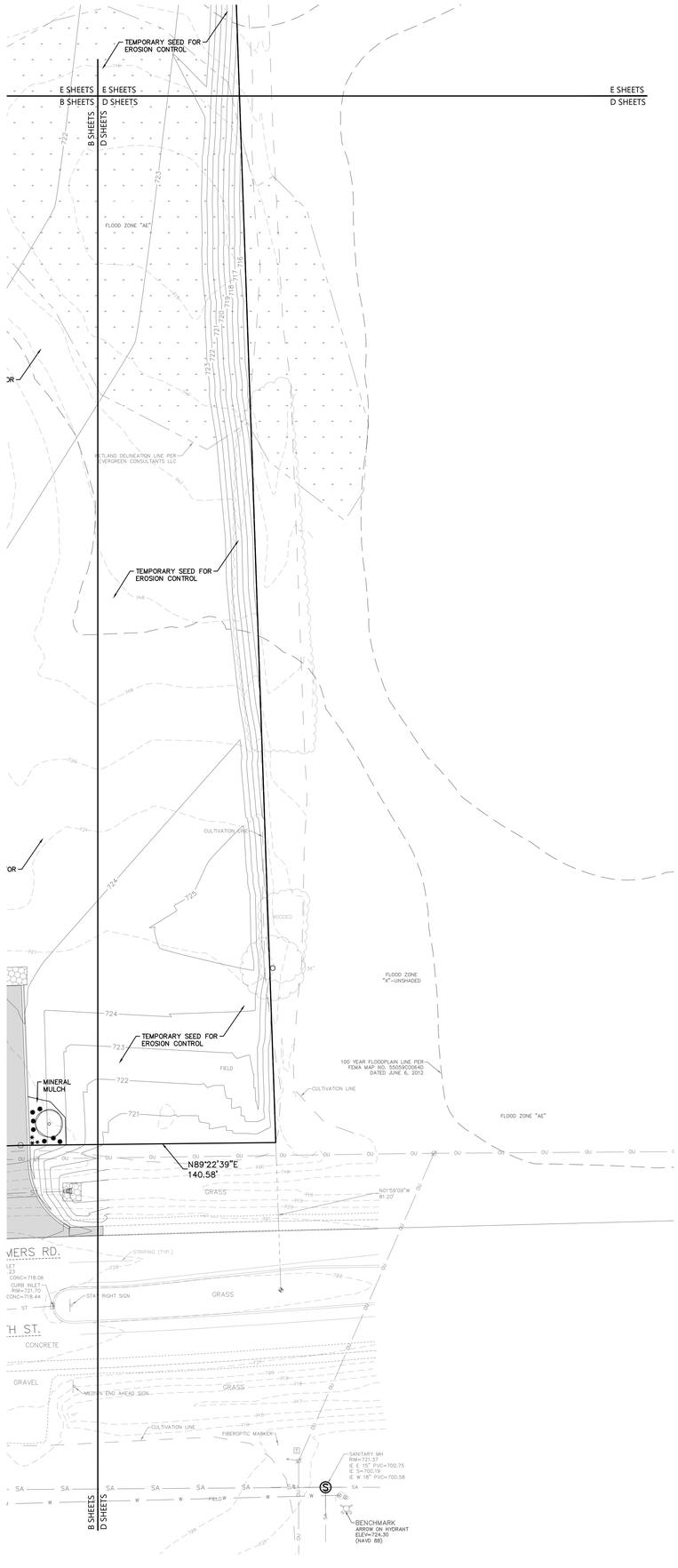
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C1.4C

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

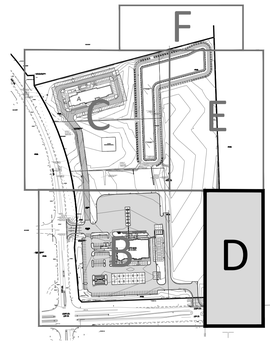
LANDSCAPE AND RESTORATION PLAN - NORTHWEST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



VERTICAL DATUM CONVERSION
1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88 2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.4D

NORTH
1"= 30'
SCALE
30' 0 30' 60'
FEET

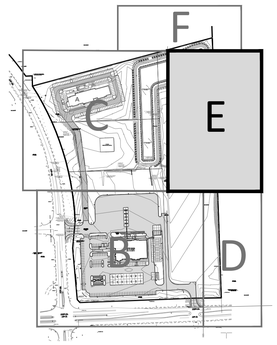
LANDSCAPE AND RESTORATION PLAN - SOUTHEAST
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.4E

NORTH
1"= 30'
SCALE
30' 0 30' 60'
FEET

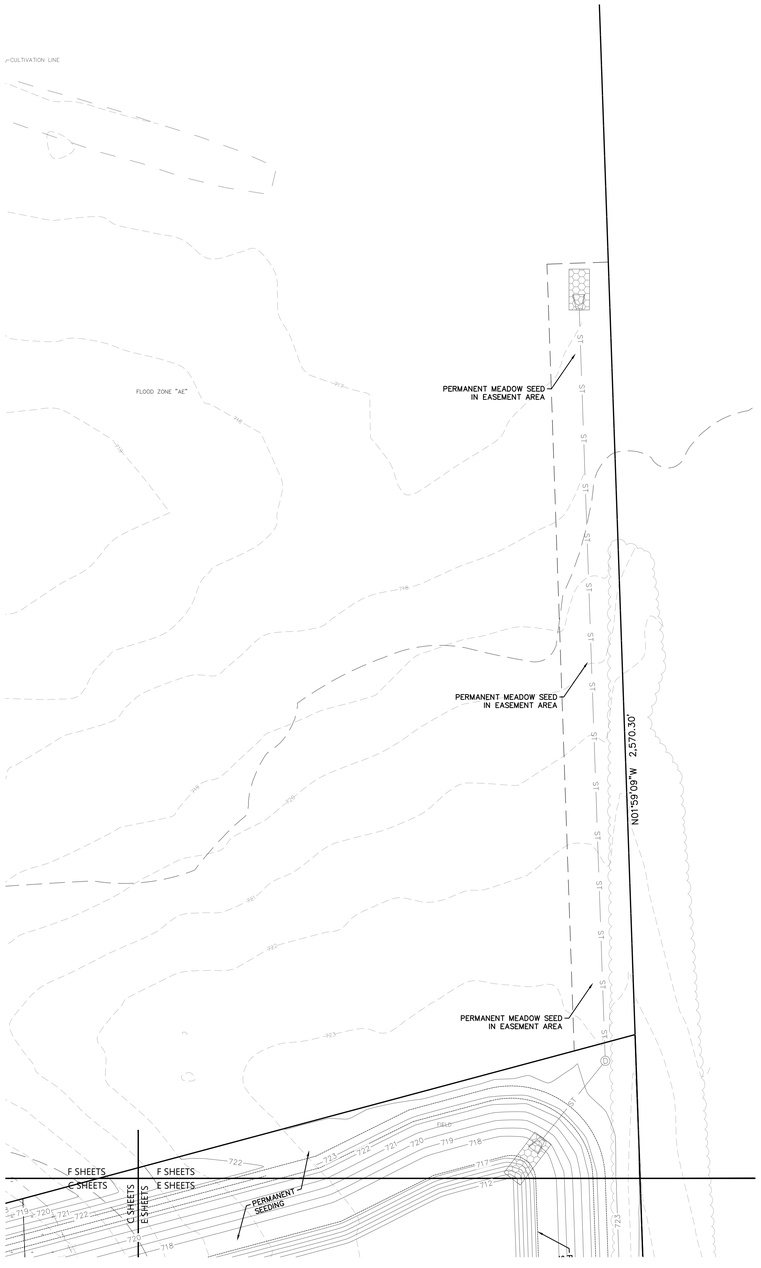
LANDSCAPE AND RESTORATION PLAN - NORTHEAST
EXCEL JOB #: 2266000

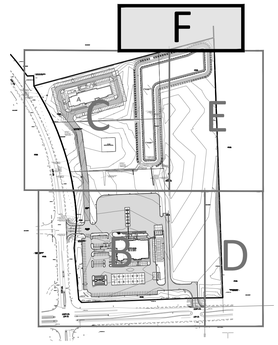
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS





KEY PLAN
NTS

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

LANDSCAPE AND RESTORATION PLAN - NORTH

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

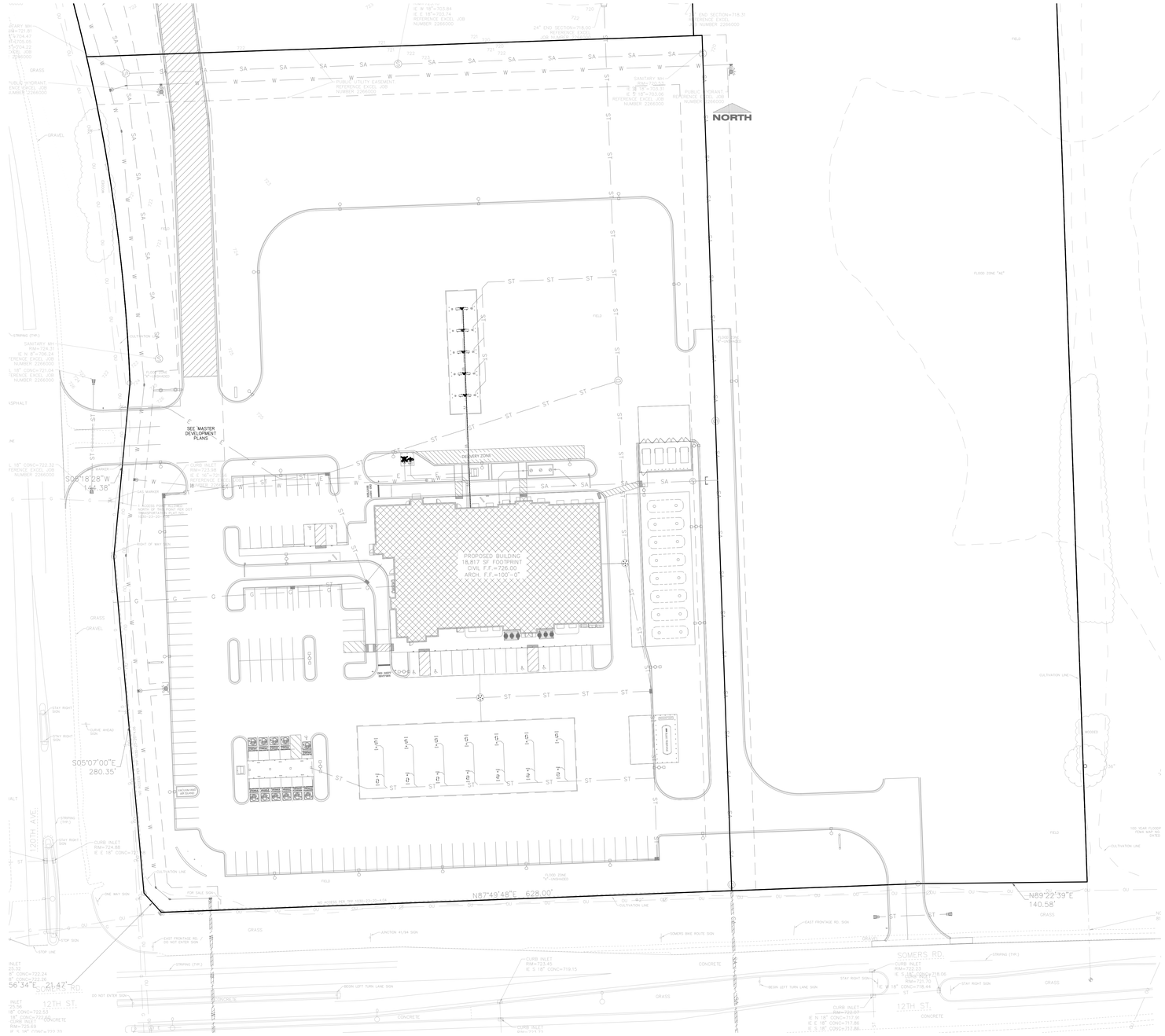
GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C1.4F



NORTH

1"= 40' SCALE 40' 0 40' 80' FEET

SITE PHOTOMETRIC PLAN AND DETAILS

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller

PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"

This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT

DESIGNER: R. LINDSTROM

DRAWN BY: EXCEL ENGINEERING

EXPEDITOR: _____

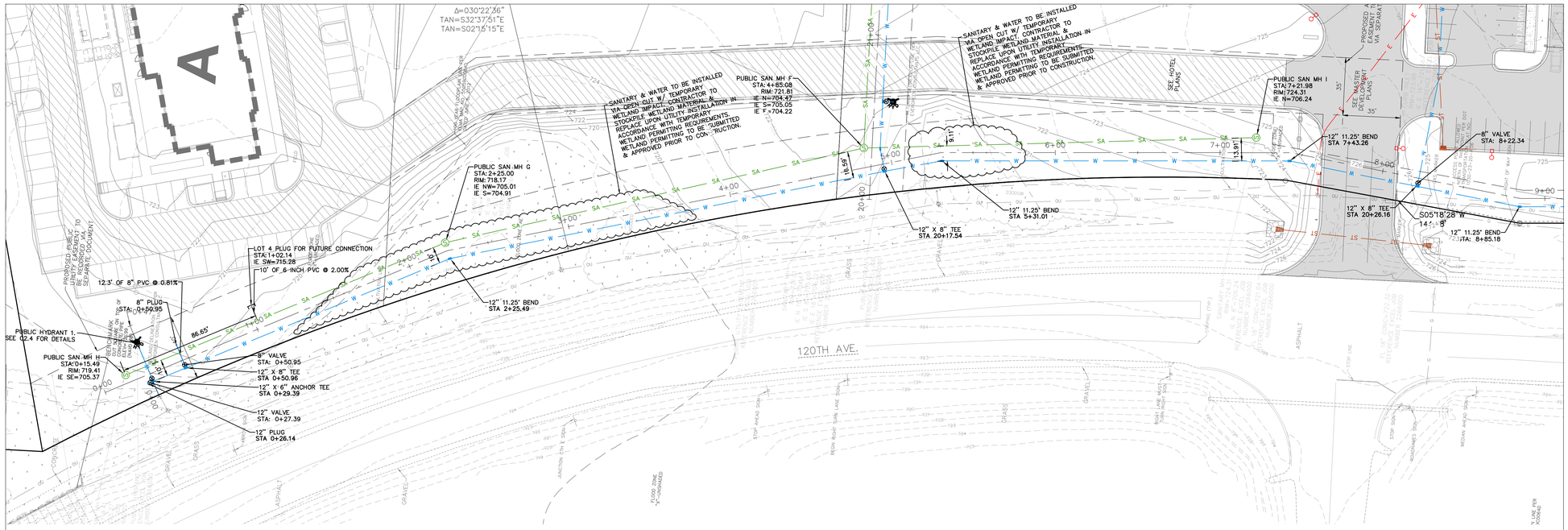
SUPERVISOR: _____

PRELIMINARY NO: P22188

CONTRACT NO: _____

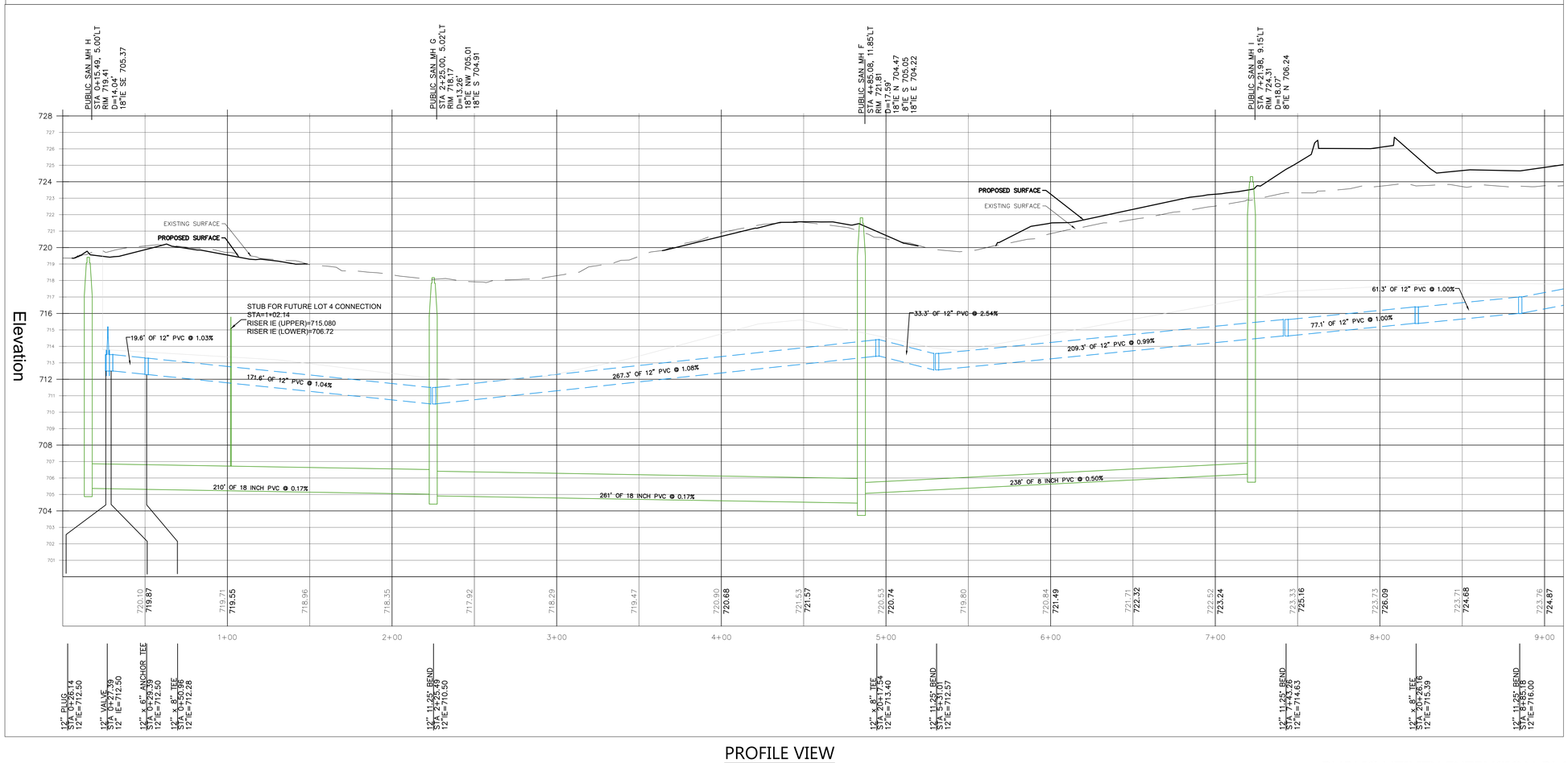
DATE: APR. 26, 2024

SHEET: C1.5



PLAN VIEW

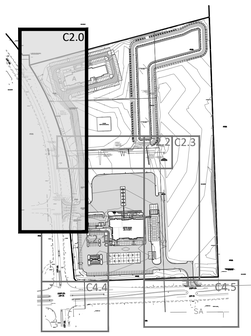
SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

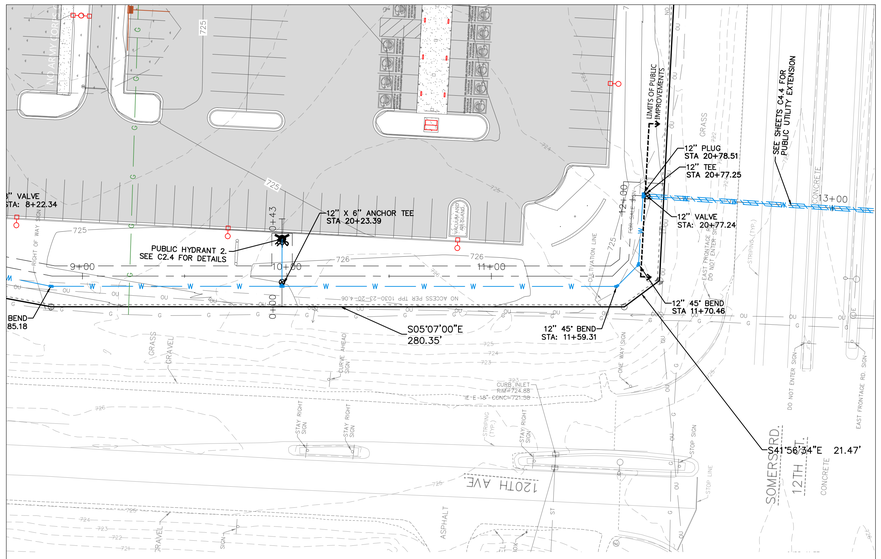
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C2.0

NORTH
1"= 30'
SCALE: 30' 0 30' 60' FEET

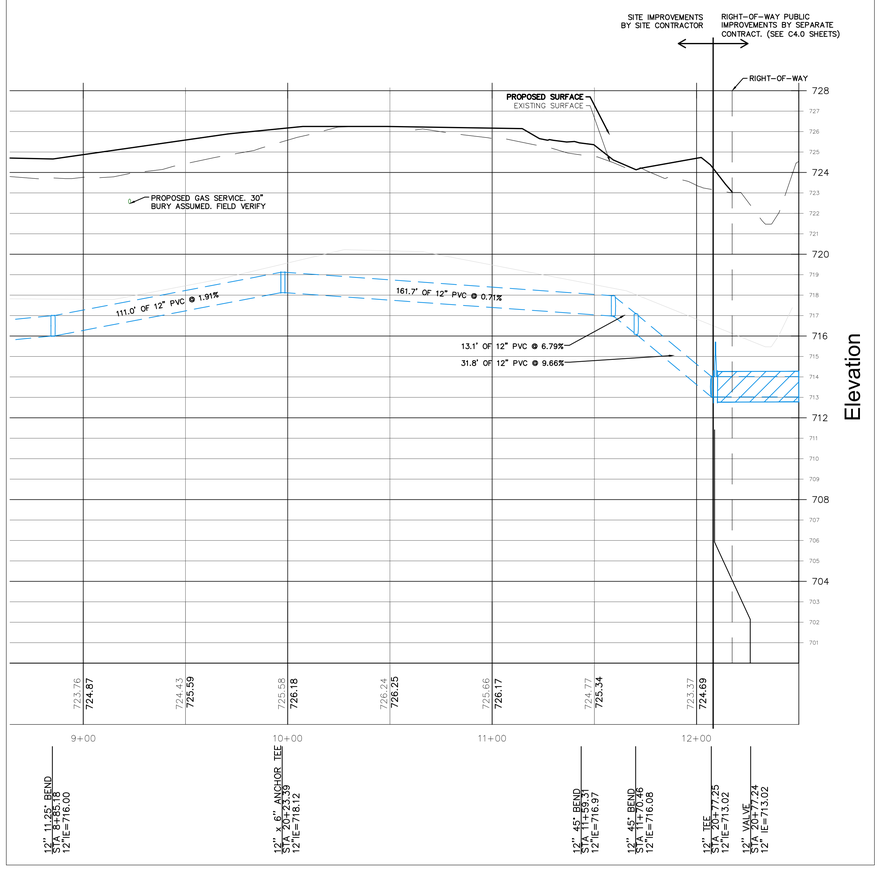
PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 0+00-9+00
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



PLAN VIEW

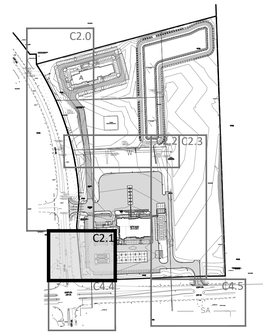
SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN
SPECIFICATIONS AND REQUIREMENTS



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 /
1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C2.1

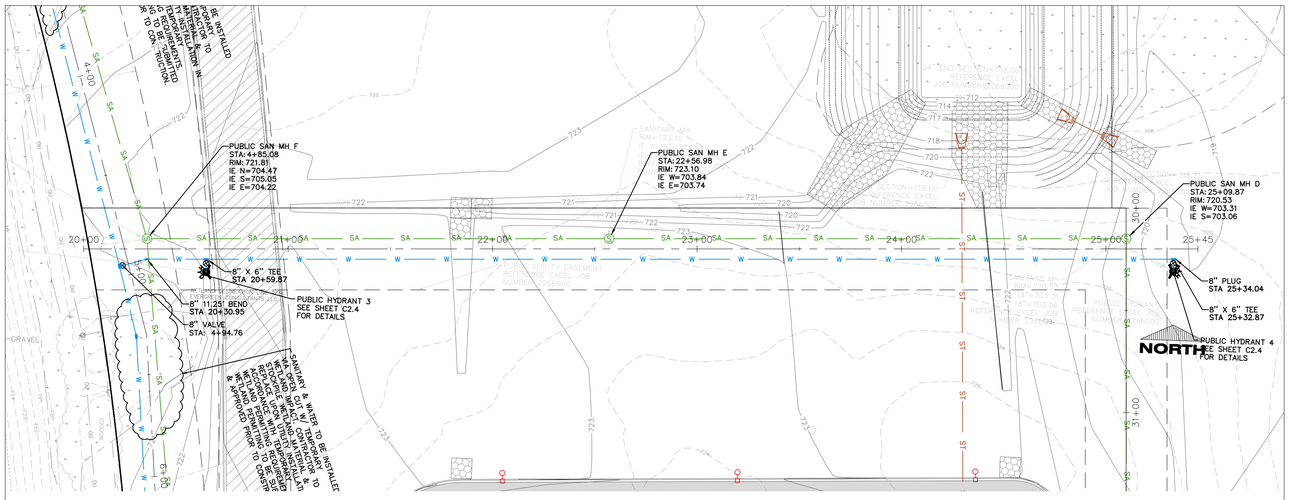
NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 9+00-12+08

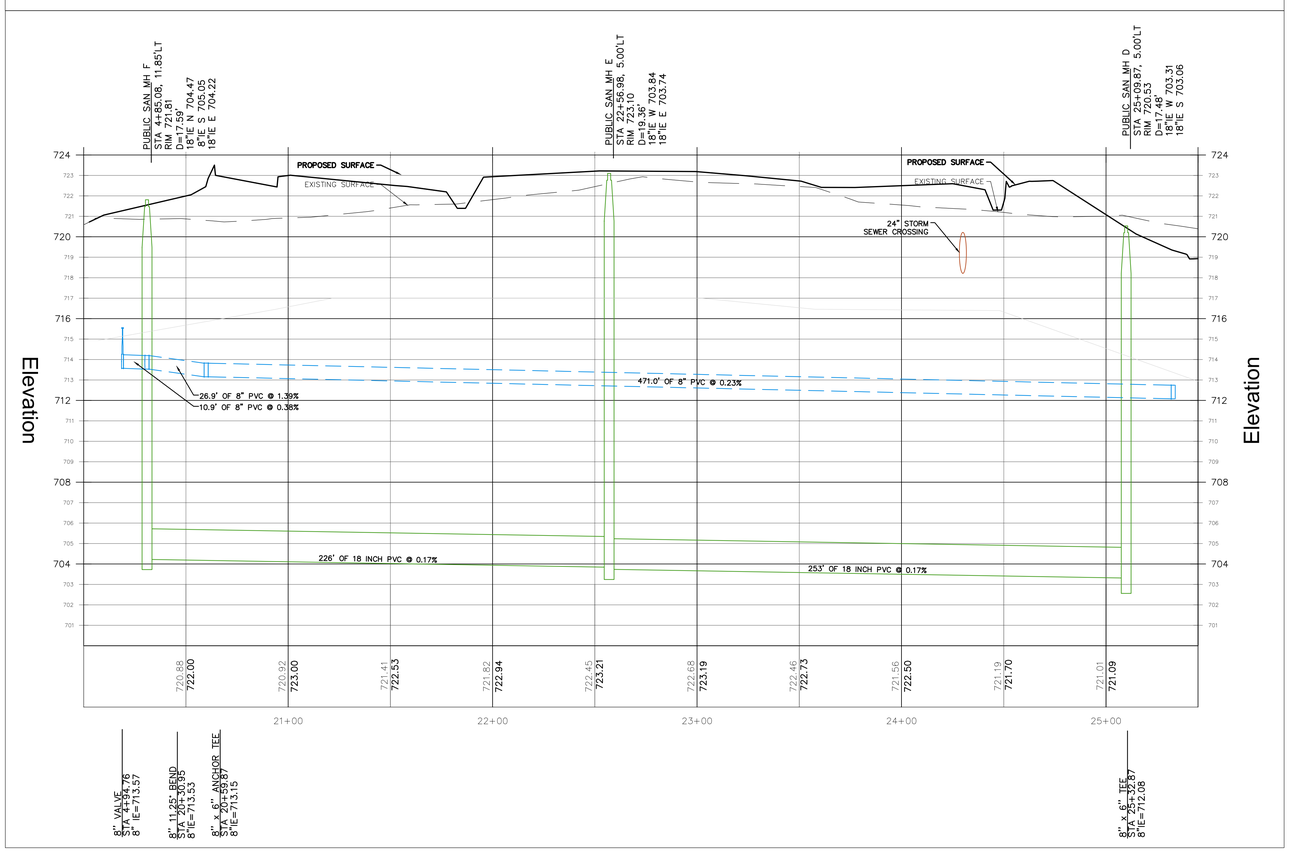
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



PLAN VIEW

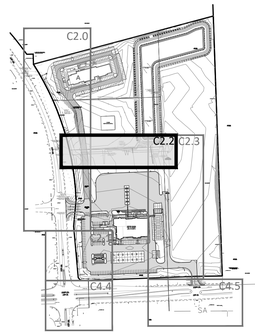
SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 20+00-25+45

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

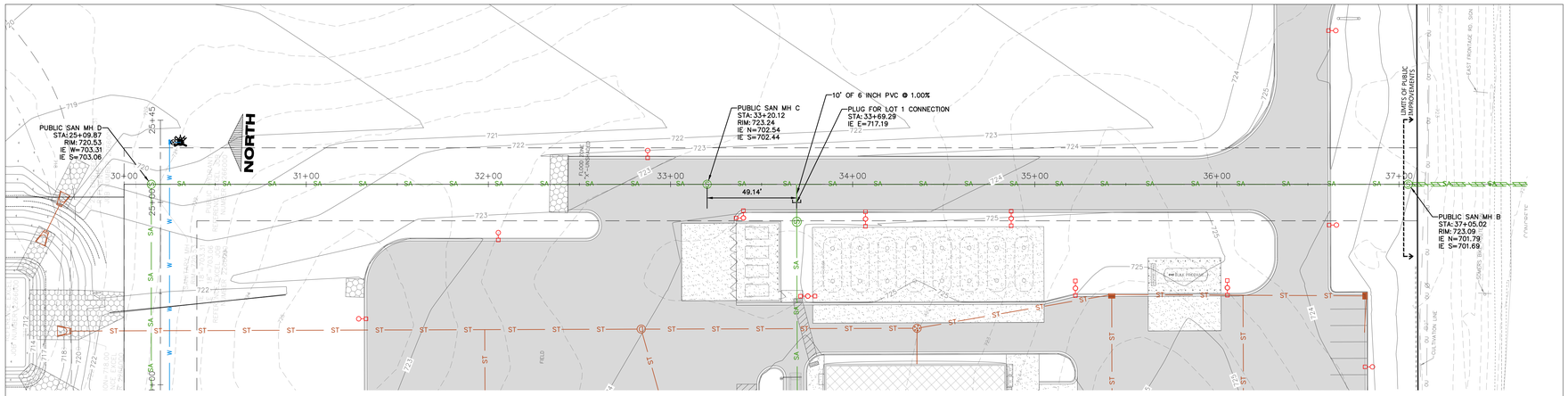
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

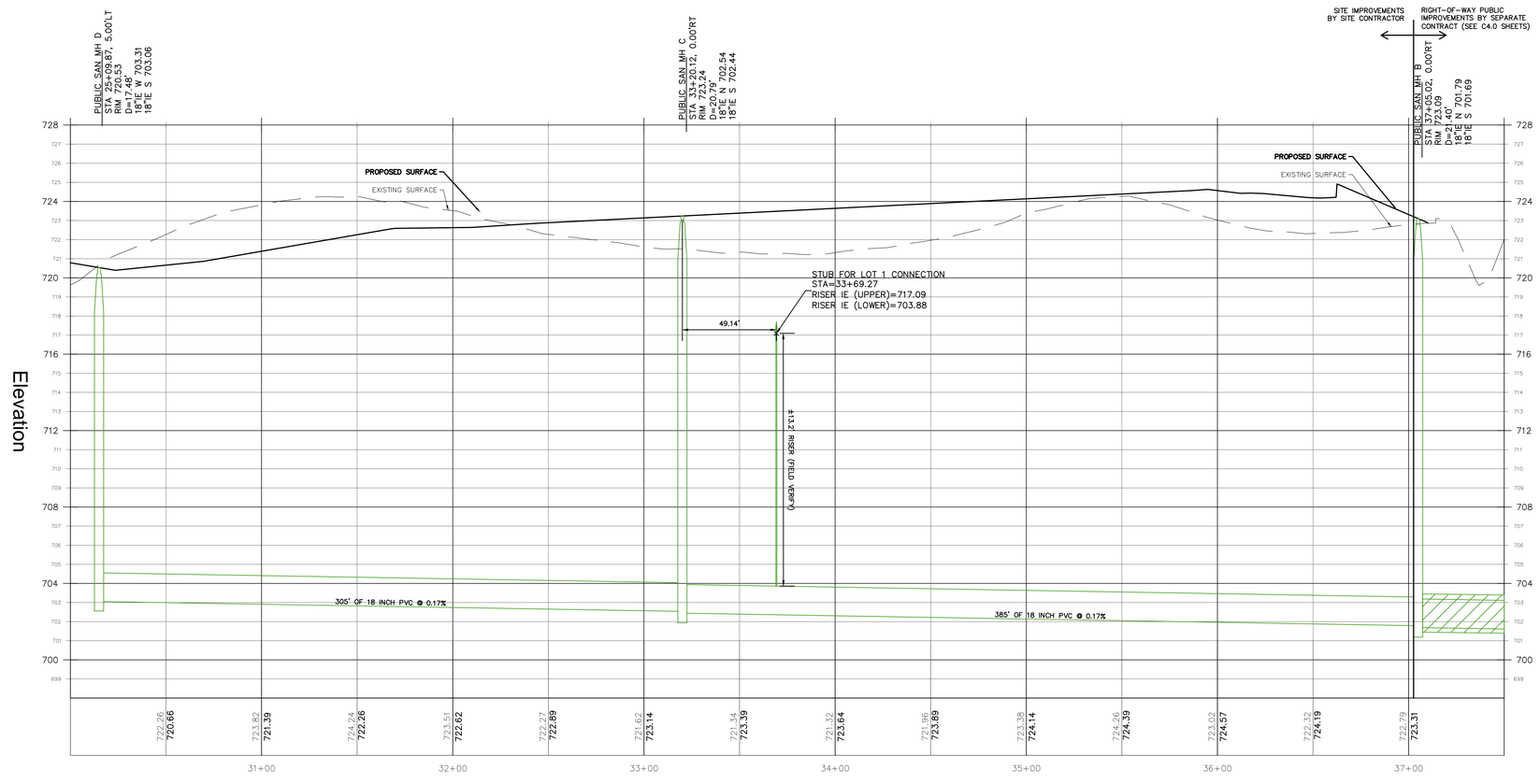
PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C2.2



PLAN VIEW

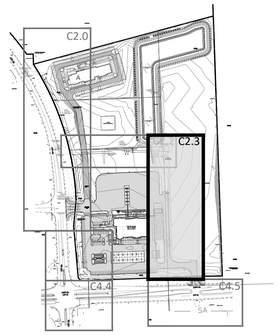
SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

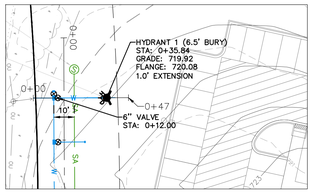
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C2.3

NORTH
1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 30+00-37+06

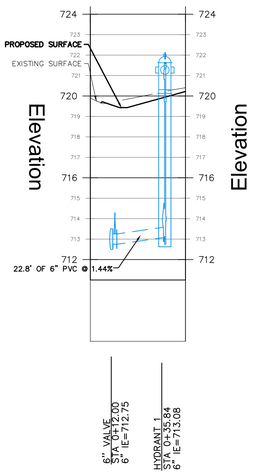
EXCEL JOB #: 2266000

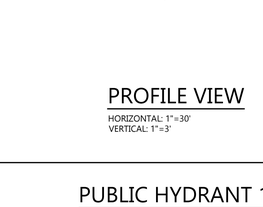
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



PLAN VIEW

SCALE: 1"=30'



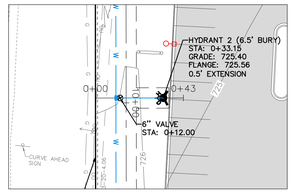


PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

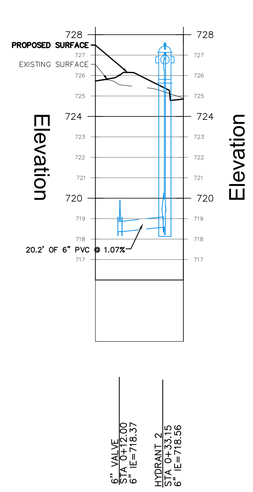
NORTH

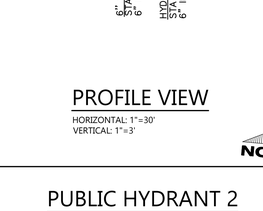
PUBLIC HYDRANT 1



PLAN VIEW

SCALE: 1"=30'



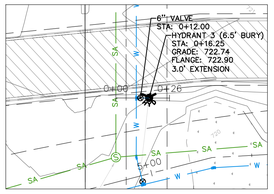


PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

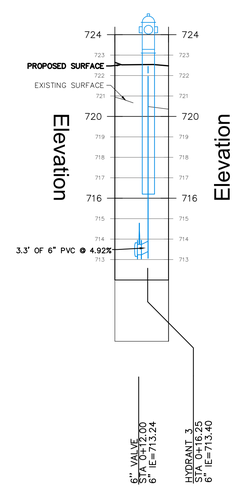
NORTH

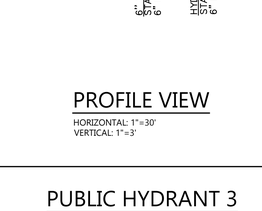
PUBLIC HYDRANT 2



PLAN VIEW

SCALE: 1"=30'



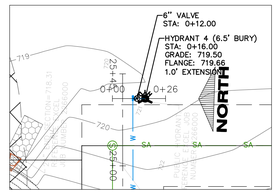


PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

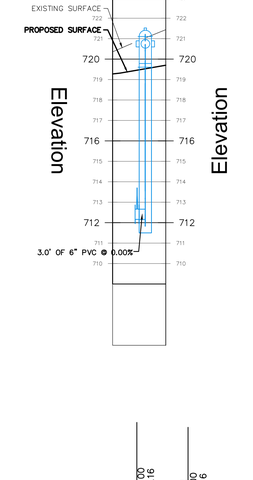
NORTH

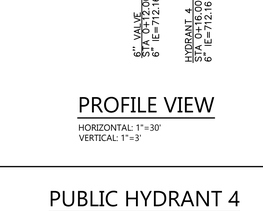
PUBLIC HYDRANT 3



PLAN VIEW

SCALE: 1"=30'



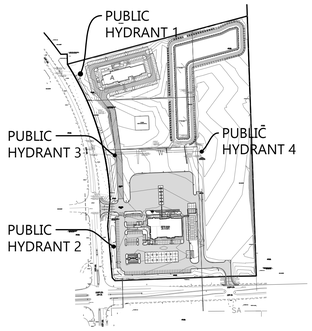


PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

NORTH

PUBLIC HYDRANT 4



PUBLIC HYDRANT KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

1"= 30' SCALE 30' 0 30' 60' FEET

PUBLIC HYDRANT PLAN & PROFILES

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

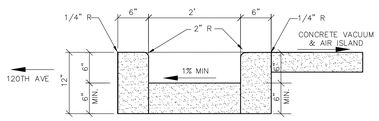
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

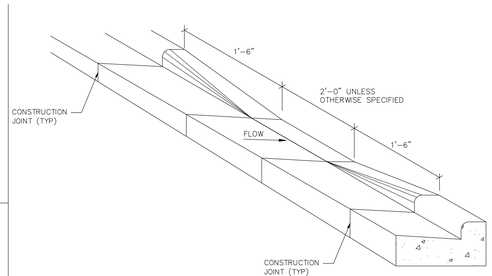
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE: APR. 26, 2024

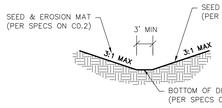
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C2.4



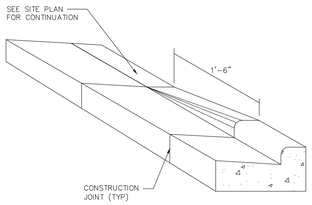
FLOW THROUGH CURB DETAIL
NO SCALE



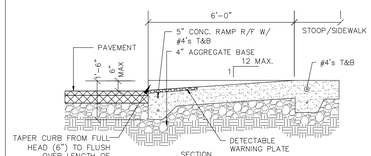
CURB CUT DETAIL
NO SCALE

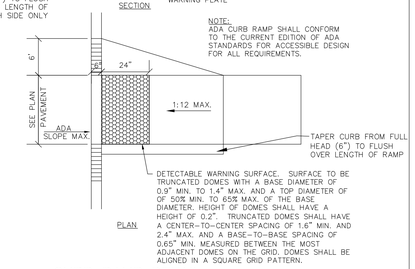


TYP. VEGETATED DITCH
X-SECTION



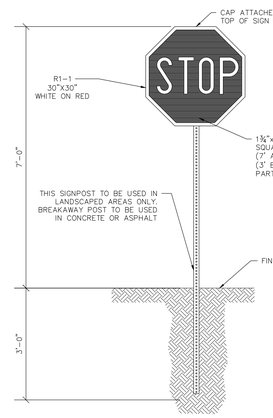
CURB TAPER DETAIL
NO SCALE



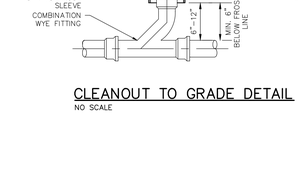


CURB RAMP DETAIL
NO SCALE

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



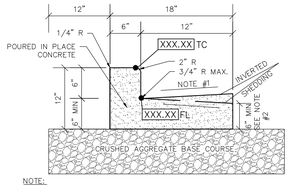
STOP SIGN WITHOUT CONCRETE BASE DETAIL
NO SCALE



NOTE:

1. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
3. SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

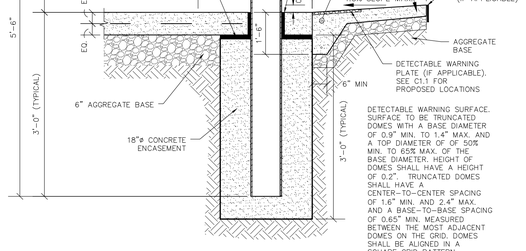
18" MOUNTABLE CURB & GUTTER DETAIL
NO SCALE



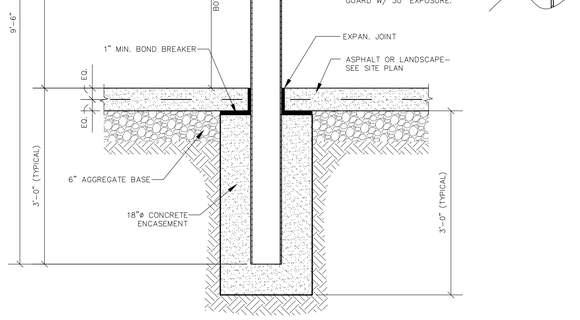
NOTE:

1. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
3. SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

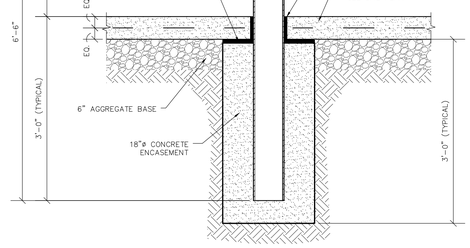
18" CONCRETE CURB & GUTTER DETAIL
NO SCALE



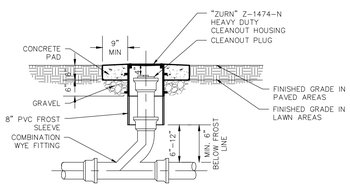
FLUSH WALK WITH BOLLARD DETAIL
NO SCALE



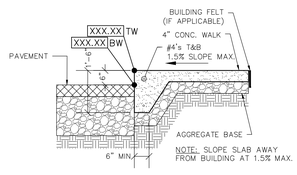
6" HANDICAP PIPE BOLLARD DETAIL
NO SCALE



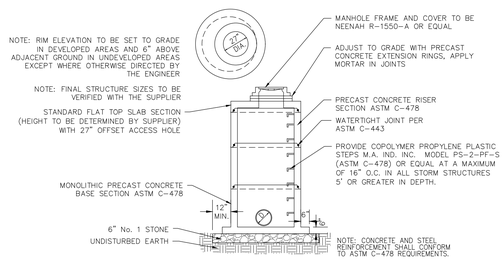
6" PIPE BOLLARD DETAIL
NO SCALE



CLEANOUT TO GRADE DETAIL
NO SCALE



RAISED WALK DETAIL
NO SCALE



STORM MANHOLE DETAIL
NO SCALE

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

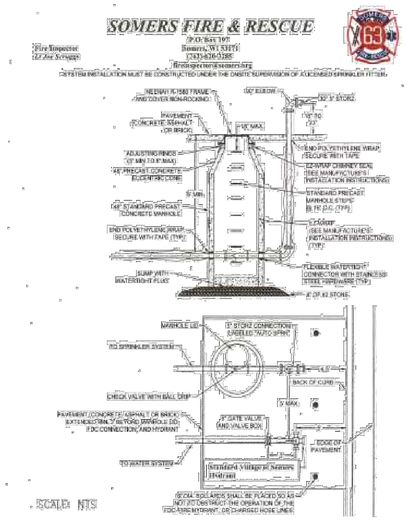
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

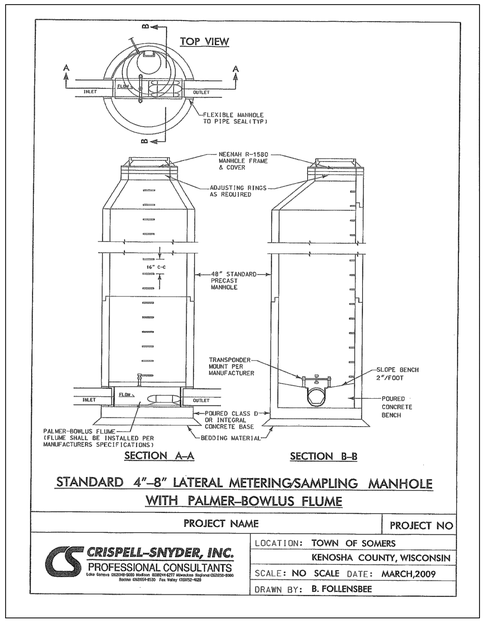
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C3.0

DETAILS
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

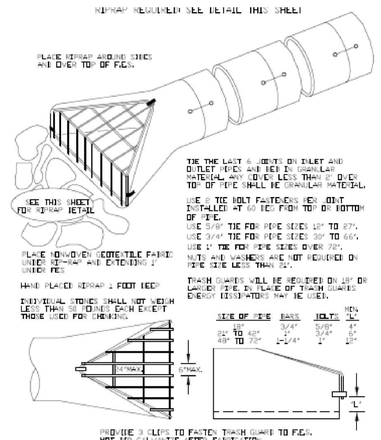


FIRE HYDRANTS
FIRE HYDRANTS SHALL BE CLOW MEDALLION WITH 5 ¼-INCH VALVE OPENING, O-RING SEALED, TWO 2 1/2"-INCH HOSE NOZZLES AND ONE 5-INCH STORZ QUICK CONNECTION STEAMER NOZZLE.

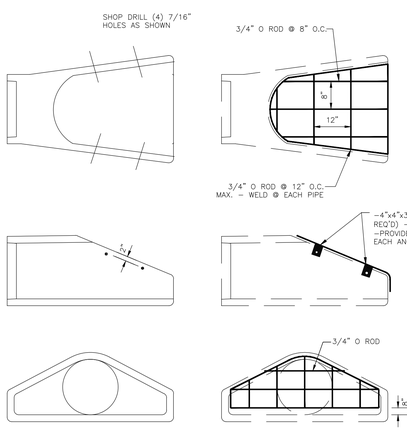


STANDARD 4"-8" LATERAL METERING/SAMPLING MANHOLE WITH PALMER-BOWLUS FLUME

PROJECT NAME	PROJECT NO
CRISPELL-SNYDER, INC. PROFESSIONAL CONSULTANTS	LOCATION: TOWN OF SOMERS, KENOSHA COUNTY, WISCONSIN
	SCALE: NO SCALE DATE: MARCH,2009
	DRAWN BY: B. FOLLENSBEE



CONCRETE END SECTION DETAIL
NO SCALE



SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

- THE CONTRACTOR SHALL BOLT THE GRATE TO THE CONCRETE END WALL WITH FOUR 3/8" x 6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.
- APPLICABLE FOR PIPE SIZES 18" AND GREATER.

PAINTING SPECIFICATIONS
THE PIPE GRATE SHALL RECEIVE THE FOLLOWING PREPARATION & PAINTING, SEE NOTES:
FIRST COAT- RUST-OLEUM X-60 RED BARE METAL PRIMER OR EQUAL
SECOND COAT- RUST-OLEUM 960 ZINC CHROMATE PRIMER OR EQUAL
THIRD COAT- RUST-OLEUM 1282 HIGH GLOSS & METALLIC FINISH OR EQUAL.

NOTES:
- BARE SURFACES - AFTER THROUGH SCRAPING, WIRE BRUSHING & CLEANING, APPLY THE THREE COAT SYSTEM LISTED.
- EACH COAT AN OVERALL COAT
- ALLOW 24-48 HOURS DRYING TIME BETWEEN COATS.

GRATE INSTALLATION DETAIL
NO SCALE

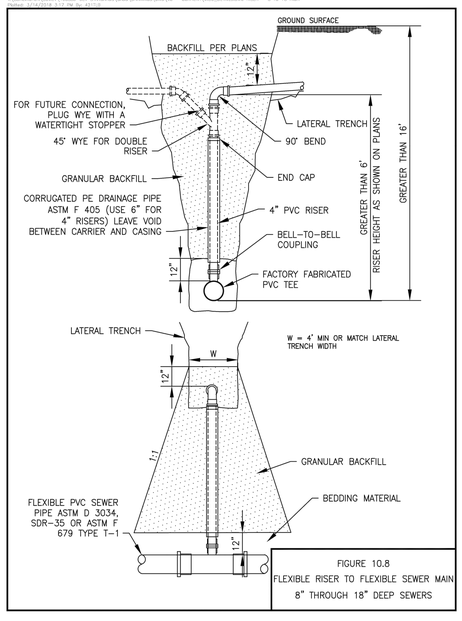
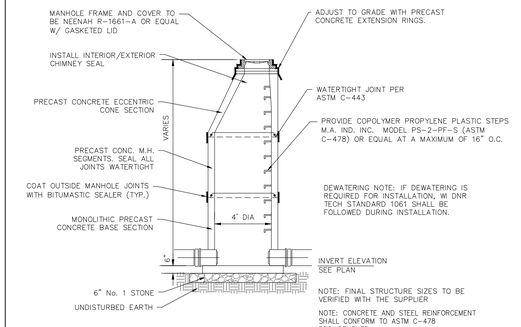
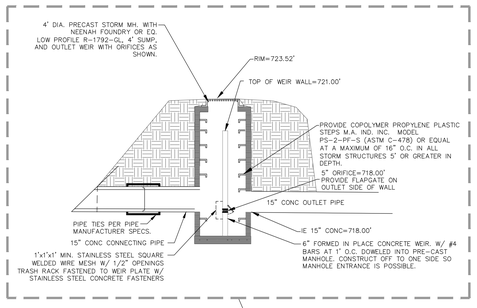
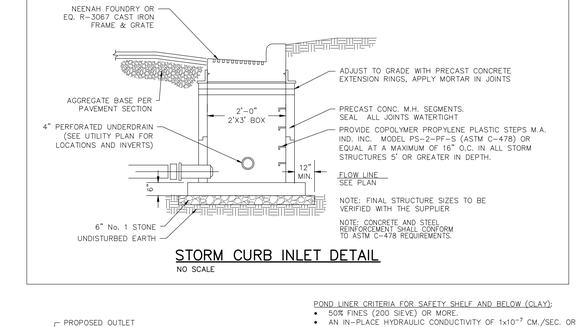


FIGURE 10.8
FLEXIBLE RISER TO FLEXIBLE SEWER MAIN
8" THROUGH 18" DEEP SEWERS

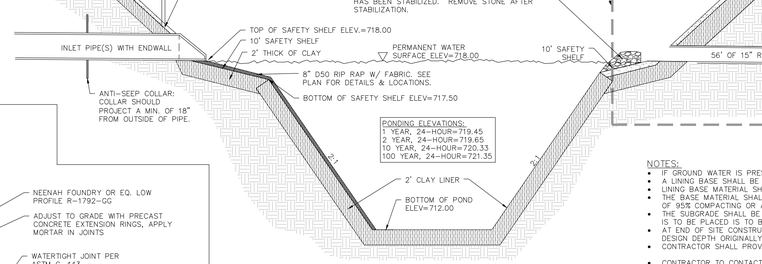


PUBLIC/PRIVATE SANITARY MANHOLE W/ CONE SECTION DETAIL
NO SCALE





STORM CURB INLET DETAIL
NO SCALE



POND LINER CRITERIA FOR SAFETY SHELF AND BELOW (CLAY):
- 50% FINES (200 SIEVE) OR MORE.
- AN IN-PLACE HYDRAULIC CONDUCTIVITY OF $1x10^{-7}$ CM./SEC. OR LESS.
- AVERAGE LIQUID LIMIT VALUE OF 25 OR GREATER, WITH NO VALUE LESS THAN 20.
- AVERAGE PI OF 12 OR MORE WITH NO VALUES LESS THAN 10.
- CLAY INSTALLED WET OF OPTIMUM IF USING STANDARD PROCTOR, AND 2% WET OF OPTIMUM IF USING MODIFIED PROCTOR.
- CLAY COMPACTION AND DOCUMENTATION AS SPECIFIED IN NRCS WISCONSIN CONSTRUCTION SPECIFICATION 300, CLAY LINERS.
- MINIMUM THICKNESS OF TWO FEET.
- SPECIFY METHOD FOR KEEPING POOL FULL OR USE OF COMPOSITE SOILS BELOW LINER.

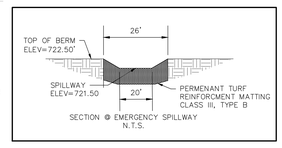
POND LINER ALTERNATE:
- CONTRACTOR TO PROVIDE 60 MIL/HDPE POND LINER IN LIEU OF CLAY LINER TO LINE ENTIRE POND AREA UP TO THE 2 YEAR, 24-HOUR WATER PONDING ELEVATION (SEE ELEVATION ON DETAIL)
- DESIGN ACCORDING TO THE CRITERIA IN TABLE 3 OF THE NRCS 313, WASTE STORAGE FACILITY TECHNICAL STANDARD
- INSTALL ACCORDING TO NRCS WISCONSIN CONSTRUCTION SPECIFICATION 202, POLYETHYLENE GEOMEMBRANE LINING.

4-6" ROUND STONE OVER FILTER FABRIC SHALL BE PROVIDED TO COVER THE ENTIRE LINER. TOP OF STONE SHALL MATCH PROPOSED POND ELEVATIONS.

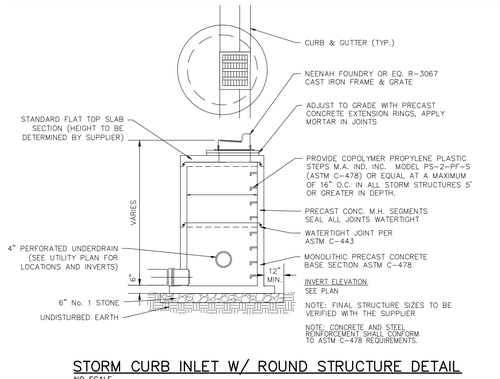
WET RETENTION POND
NO SCALE

NOTES:
- IF GROUND WATER IS PRESENT; TILE SYSTEM SHOULD BE INSTALLED UNDER POND TO ALLOW PUMPING DURING CONSTRUCTION.
- A LINING BASE MATERIAL SHALL BE PREPARED ON THE BOTTOM AND SLOPES OF THE AREA ARE TO BE LINED.
- LINING BASE MATERIAL SHALL BE FREE OF ALL SHARP OBJECTS, ROOTS GRASS AND VEGETATION.
- THE BASE MATERIAL SHALL BE NATIVE MATERIALS OR MATERIALS OBTAINED FROM A BORROW SOURCE COMPACTED TO A MIN. OF 95% COMPACTING OR AN APPROVED CONSTRUCTION FABRIC.
- THE SUBGRADE SHALL BE PREPARED IMMEDIATELY PRIOR TO THE PLACING OF THE LINER. THE SURFACE ON WHICH THE LINER IS TO BE PLACED IS TO BE FIRM, CLEAN, DRY AND SMOOTH.
- AT END OF SITE CONSTRUCTION, POND DEPTH SHALL BE CHECKED FOR SEDIMENTATION AND DREDGED, IF NECESSARY, TO THE DESIGN DEPTH ORIGINALLY PROPOSED.
- CONTRACTOR SHALL PROVIDE EROSION MATTING AS REQUIRED PER SPECIFICATIONS NOTED ON C0.2.
- CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE STORMWATER POND. THE SURVEY SHALL BE COMPLETED PRIOR TO THE POND FILLING WITH WATER. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE. PLEASE NOTE THAT THE HORIZONTAL TOLERANCE FOR POND CONSTRUCTION IS 0.50' AND THE VERTICAL TOLERANCE FOR POND, OUTLET, AND SPILLWAY CONSTRUCTION IS 0.10'. ANY ADDITIONAL WORK REQUIRED TO SURVEY A POND FULL OF WATER OR FOR SURVEYING FOLLOWING REWORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

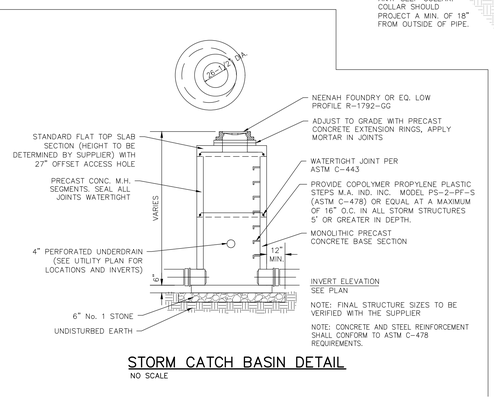
OVERALL STORMWATER FACILITY DETAIL
NO SCALE



NORTH EMERGENCY SPILLWAY DETAIL
NO SCALE



STORM CURB INLET W/ ROUND STRUCTURE DETAIL
NO SCALE



STORM CATCH BASIN DETAIL
NO SCALE

DETAILS
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

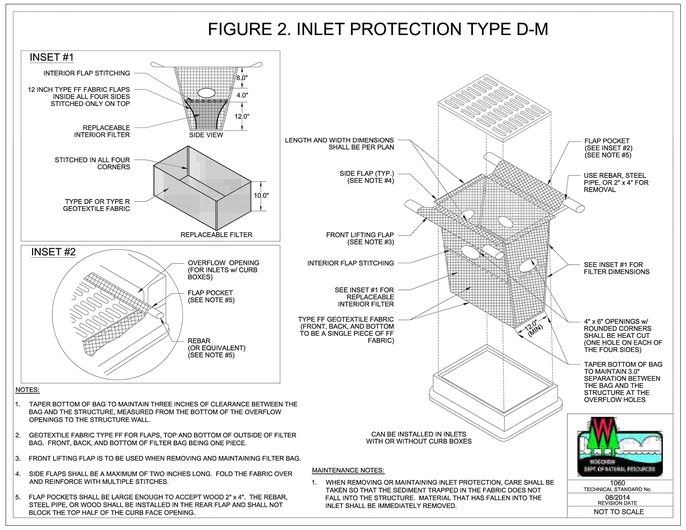
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

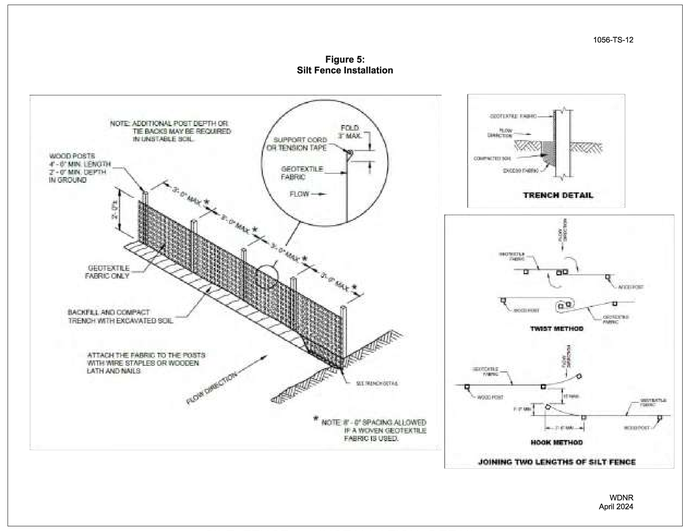
"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C3.1

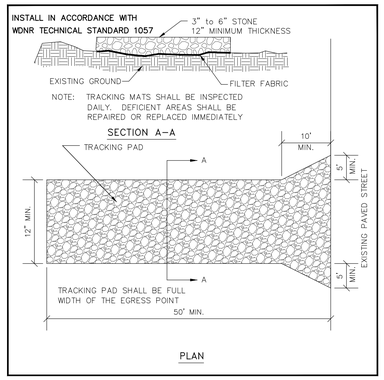


INLET PROTECTION DETAIL
NO SCALE

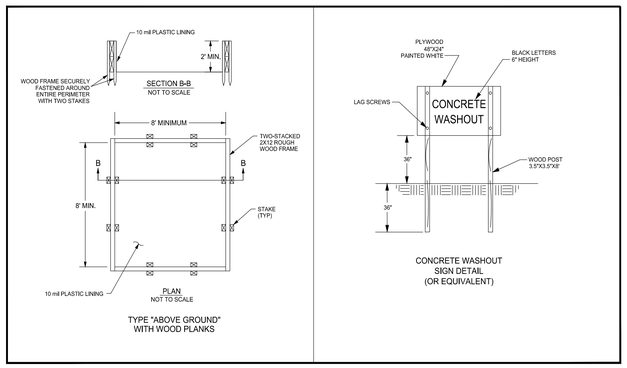


SILT FENCE – INSTALLATION DETAIL
NO SCALE

SPECIFICATION NOTE:
SEE SHEET C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

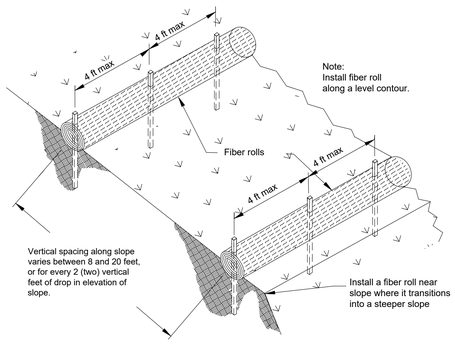


TRACKPAD DETAILS
NO SCALE

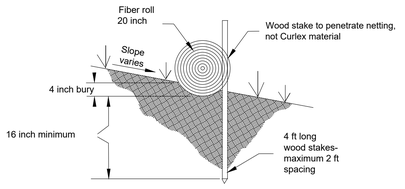


CONTRACTOR TO ADHERE TO WI DNR STANDARDS

CONCRETE WASHOUT DETAIL
NO SCALE



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



SEDIMENT LOG INSTALLATION
NOT TO SCALE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1053 (CHANNEL EROSION MAT).

VARIATIONS IN THE DIMENSIONS OR MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.

LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.

JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.

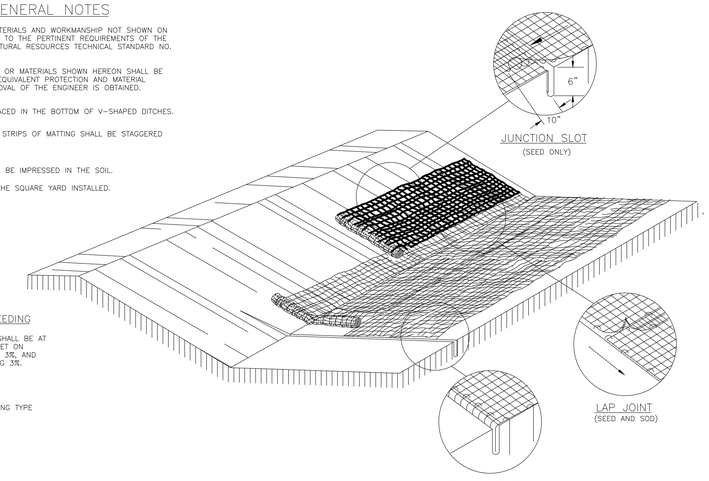
EDGES OF EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

EROSION MAT SHALL PAID BY THE SQUARE YARD INSTALLED.

EROSION MAT OVER SEEDING

JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 3%, AND 50 FEET ON GRADES EXCEEDING 3%.

NOTE:
SEE SPECIFICATIONS FOR MATTING TYPE



CHANNEL EROSION MAT DETAIL
NOT TO SCALE

Keller
PLANNERS | ARCHITECTS | BUILDERS
FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004
MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245
MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740
WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181
www.kellerbuilds.com

SOMERS GATEWAY CENTER
WISCONSIN

PROPOSED DEVELOPMENT FOR:
GOLDEN OIL - SOMERS

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: ---
SUPERVISOR: ---
PRELIMINARY NO: P22188
CONTRACT NO: ---
DATE: APR. 26, 2024
SHEET: C3.2

DETAILS
EXCEL JOB #: 2266000

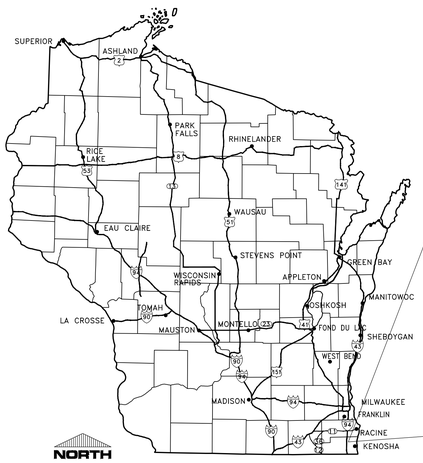
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

PROPOSED PUBLIC IMPROVEMENT PLANS FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS, WISCONSIN

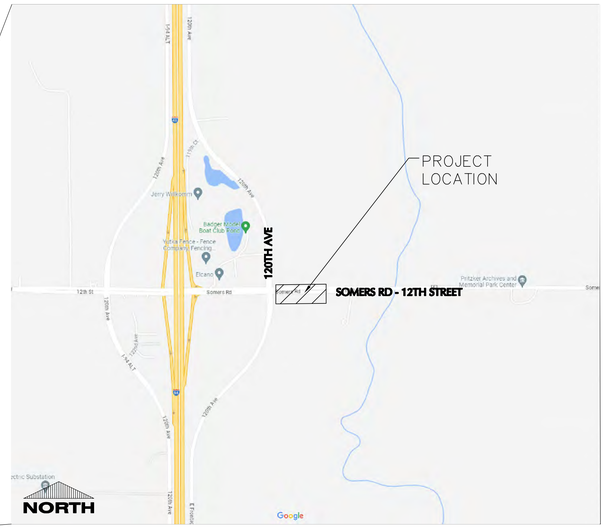
LEGEND

000.00	PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)
000.00 EG	EXISTING GRADE SPOT ELEVATIONS
000.00 BG 000.00 FG	PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG-FINISHED SURFACE GRADE AT BACK OF WALL FG-FINISHED SURFACE GRADE AT FRONT OF WALL
000.00 TC 000.00 FL	PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
000.00 TW 000.00 BW	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
	EXISTING WATER VALVE IN BOX
	PROPOSED WATER VALVE IN BOX
	EXISTING WATER VALVE IN MANHOLE
	EXISTING WATER SERVICE VALVE
	EXISTING TELEPHONE MANHOLE
	EXISTING STORM CATCH BASIN
	PROPOSED STORM CATCH BASIN - ST CB
	PROPOSED STORM FIELD INLET - ST FI
	EXISTING SQUARE CATCH BASIN
	EXISTING STORM CURB INLET
	PROPOSED STORM CURB INLET - ST CI
	EXISTING UTILITY POLE
	EXISTING UTILITY POLE WITH GUY WIRE
	EXISTING STREET LIGHT
	EXISTING TELEPHONE PEDESTAL
	EXISTING ELECTRIC PEDESTAL
	EXISTING ELECTRIC BOX
	EXISTING CABLE TV PEDESTAL
	PROPOSED DRAINAGE FLOW
	1-1/4" REBAR SET WEIGHING 4.30 LB/FT.
	3/4" REBAR SET WEIGHING 1.50 LB/FT.
	1-1/4" REBAR FOUND
	3/4" REBAR FOUND
	2" IRON PIPE FOUND
	1" IRON PIPE FOUND
	EXISTING FLOOD LIGHT
	SECTION CORNER
	PROPOSED APRON END SECTION
	EXISTING MARSH AREA
	EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
	EROSION MATTING
IP	PROPOSED INLET PROTECTION

	EXISTING CONIFEROUS TREE
	EXISTING SHRUB
	EXISTING STUMP
	SOIL BORING
	EXISTING WELL
	PROPOSED WELL
	PROPOSED LIGHT POLE
	EXISTING LIGHT POLE
	PROPOSED SIGN
	EXISTING SIGN
	CENTER LINE
	EXISTING HANDICAP PARKING STALL
	PROPOSED HANDICAP PARKING STALL
	EXISTING GAS VALVE
	EXISTING WOODED AREA
	EXISTING HEDGE
	EXISTING CHAINLINK FENCE
	EXISTING WOOD FENCE
	EXISTING BARBED WIRE FENCE
	PROPOSED PROPERTY LINE
	EXISTING GUARD RAIL
ST	EXISTING STORM SEWER AND MANHOLE
ST	PROPOSED STORM SEWER AND MANHOLE - ST MH
SA	EXISTING SANITARY SEWER AND MANHOLE
SA	PROPOSED SANITARY SEWER AND MANHOLE - SAN MH
W	EXISTING WATER LINE AND HYDRANT
W	PROPOSED WATER LINE AND HYDRANT
OU	EXISTING OVERHEAD UTILITY LINE
FO	EXISTING UNDERGROUND FIBER OPTIC LINE
E	EXISTING UNDERGROUND ELECTRIC CABLE
T	EXISTING UNDERGROUND TELEPHONE CABLE
G	EXISTING UNDERGROUND GAS LINE
	PROPOSED CURB AND GUTTER
	EXISTING CURB AND GUTTER
	GRADING/SEEDING LIMITS
	RIGHT-OF-WAY LINE
	INTERIOR PROPERTY LINE
	RAILROAD TRACKS
800	EXISTING GROUND CONTOUR
800	PROPOSED GROUND CONTOUR



LOCATION MAP



PROJECT LOCATION MAP

CIVIL SHEET INDEX

SHEET	SHEET TITLE
C4.0	CIVIL COVER SHEET
C4.1	CIVIL SPECIFICATION SHEET
C4.2	VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
C4.3	SITE, GRADING, EROSION CONTROL, & RESTORATION PLAN
C4.4	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 12+08 - 14+81
C4.5	PUBLIC UTILITY IMPROVEMENT PLAN & PROFILE - STA 37+06 - 42+20
C4.6	DETAILS

WISCONSIN
DEVIN WINTER
49621-6
DEVELOPMENT ENGINEER
PROFESSIONAL ENGINEER

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED) 1-800 542-2289
WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

PROJECT LOCATION MAP

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

GENERAL PROJECT NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS. ALL WORK IN THE ROW SHALL CONFORM TO KENOSHA COUNTY STANDARDS & SPECIFICATIONS.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PER VILLAGE OF SOMERS & KENOSHA COUNTY REQUIREMENTS FOR ALL RIGHT-OF-WAY IMPROVEMENTS AND AS REQUIRED FOR CONSTRUCTION.
3. CONTRACTOR SHALL OBTAIN AND FOLLOW THE VILLAGE OF SOMERS DEVELOPMENT STANDARDS DATED APRIL 3,2018 AND STANDARD MATERIAL SPECIFICATION CHECKLIST DATED JULY 2023 FOR ALL CONSTRUCTION REQUIREMENTS. IF DISCREPANCIES ARE NOTICED, CONTRACTOR SHALL CONFORM TO VILLAGE OF SOMERS REQUIREMENTS.
4. **CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AN AS-BUILT SURVEY OF THE PROPOSED WATER MAIN AND SANITARY MAINS FOLLOWING COMPLETION OF THE CONSTRUCTION OF THE PUBLIC MAINS. THE CONTRACTOR SHALL TAKE ADEQUATE FIELD NOTES, PICTURES, ETC AND PROVIDE TO THE ENGINEER OF RECORD FOR COMPLETION OF THE RECORD DRAWINGS. THE RECORD DRAWINGS SHALL BE COMPLETED AND SUBMITTED TO THE VILLAGE ENGINEER PRIOR TO THE PROPERTY DEVELOPER'S REQUEST FOR FINAL INSPECTION OF THE IMPROVEMENTS. CONTRACTOR SHALL GIVE EXCEL ENGINEERING A MINIMUM OF A 3 DAY NOTICE FOR SURVEYING.**
7. IF DEWATERING IS REQUIRED FOR INSTALLATION OF UTILITIES OR OTHER IMPROVEMENTS FOR THE PROPOSED PROJECT, THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT AND OBTAIN THE NECESSARY WISCONSIN DISCHARGE ELIMINATION SYSTEM (WPDES) PERMITS FOR DEWATERING AS REQUIRED/NECESSARY BY THE WISCONSIN DNR. DEWATERING SHALL BE IN ACCORDANCE WITH WI DNR TECH STANDARD 1061.

CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.
	2. PLACE ALL SILT FENCE.
	3. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS AS NECESSARY.
2. CONSTRUCTION ACTION	1. INSTALL PUBLIC UTILITIES.
	2. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS.
3. POST CONSTRUCTION ACTION	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

CONTACTS

OWNER
SOMERS GATEWAY CENTER, LLC
1170 22ND AVE
KENOSHA, WI 53140
CONTACT: PAUL BHARDWAJ
P: (262) 425-1675
paul@goldenoilcompany.com

DEVELOPER
KELLER BUILDS, INC
W204 N11509 GOLDENDALE RD
GERMANTOWN, WI 53022
CONTACT: NATHAN LAURENT
P: (262) 894-2612
F: (262) 8250-9740
nlaurent@kellerbuilds.com

CIVIL
EXCEL ENGINEERING
100 CAMELOT DRIVE
FOND DU LAC, WISCONSIN 54935
CONTACT: DEVIN WINTER, P.E.
P: (920) 926-9800
F: (920) 926-9801
devin.winter@excelengineer.com

CIVIL COVER SHEET

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C4.0

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.

31 20 00 EARTH MOVING

A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
C. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
D. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
E. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
   1. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
F. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY _____
G. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER.
H. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PURSUANT TO NR 216.43 OR TO AN AUTHORIZED LOCAL PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.48. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
E. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING.
   1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
   2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
   3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
   4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
   5. A DESCRIPTION OF THE PRESENT PHASE OF LAND DISTURBING CONSTRUCTION ACTIVITY AT THE CONSTRUCTION SITE.
F. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
   1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
   2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
   3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
   4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE DM PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
   5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
   6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
   7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
   8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
   9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
   10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
G. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
H. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.55.
I. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
J. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 LANDSCAPING AND SITE STABILIZATION

A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8. CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
   TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
B. SEEDED LAWNS:
   1. PERMANENT LAWN AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS./1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS./1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.). STRAW AND MULCH SHALL BE LAID AT 100LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   2. ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES AS WELL AS STORMWATER MANAGEMENT BASIN BOTTOMS AND SIDE SLOPES SHALL BE SEEDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS./1000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
   3. ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 1.9 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WDNR TECHNICAL STANDARDS 1058 & 1059.
C. SEEDED LAWN MAINTENANCE: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND-OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"X5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
D. EROSION MATTING:
   1. CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER OUTSIDE OF STORMWATER CONVEYANCE SWALES AND STORMWATER MANAGEMENT BASINS. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
   2. CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS WELL AS STORMWATER MANAGEMENT BASIN BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
B. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL.
C. SANITARY MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN-CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SANITARY MANHOLE FRAME AND GRATE TO BE NEENAH R-1661-A (WATER TIGHT) OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE IN DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
D. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
E. SANITARY AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
F. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
G. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER AND SANITARY SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER AND SANITARY.
H. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

Table A: Allowable Pipe Material Schedule

Utility	Material	Pipe Code	Fitting Code	Joint Code
Public Water Main Only American-made fittings, pipe, valves, and hydrants will be allowed	C900 PVC, Class 150, SDR 18	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Public Sanitary Sewer	SDR 26 PVC	ASTM F-679 PS115	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Directionally Drill/Jack & Bore- Public Water Main Public Sanitary Main	Pressure HDPE	AWWA C906 (DR-11) ASTM D3350	AWWA C906, ASTM D2609, ASTM D2683, ASTM D3261	Butt Fusion Welded

CIVIL SPECIFICATION SHEET

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"

This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: _____
SUPERVISOR: _____
PRELIMINARY NO: P22188
CONTRACT NO: _____
DATE: APR. 26, 2024
SHEET: C4.1

Village of Somers, Wisconsin

Standard Material Specification Checklist

Established 1843 Somers VILLAGE & TOWN

Prepared by:

BAXTER & WOODMAN Consulting Engineers

www.baxterwoodman.com

Date: March 22, 2018
Last Revised: July 2023

GENERAL

- Comply with the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition.
- Obtain written approval for the proposed Plans and Specifications from the Village Engineer prior to construction.

SANITARY SEWER

GENERAL

- Bedding & cover material: 3/8" crushed limestone chips to 12" above pipe (pea gravel is not acceptable).
- Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- Consolidation of backfill: 95% standard Proctor density for imported granular material and 100% for excavated material of existing aggregate material in the adjacent trench wall. Use mechanical means, unless allowed otherwise.
- Mandrel test: 95% mandrel after 30-days.
- Internal sewer inspection: Closed circuit color television with a small flow of water in the pipe.
- Low-pressure air test: Per Standard Specifications.
- Manhole vacuum test: Per Standard Specifications.

PIPE MATERIAL

- Minimum 8-inch PVC SDR-26 (min.) conforming to ASTM D-3034, unless allowed otherwise.

MANHOLE MATERIALS

- 48-inch ID precast concrete w/eccentric cone (typ.), ASTM C478. Manhole steps shall be removed on the top section after construction is complete.
- Design flat top slabs to resist H-20 loading.
- Frames and covers: Neenah R-1580 or equal, with Type B non-rocking lid, stamped with the word "SANITARY"; self-sealing gaskets; and concealed pick holes.
- Floodplain Areas: Use bolted and gasketed watertight frame and cover: Neenah R-1916-C, East Jordan 1058 WT, or equal.
- Use a minimum of 4 inches and a maximum of 19 inches of concrete adjusting rings.
- Internal/external chimney seals: Adaptor, Inc. or equal.
- Exterior joint protection: WrapidSeal by CCI Pipeline Systems or MacWrap by Mar Mac Construction Products.
- Exterior surface treatment: Heavy-duty coal tar pitch, Top-Coat or bituminous Super Service Black.

SANITARY LATERALS

- Minimum 6-inch PVC SDR-26.
- Provide wye connections unless allowed otherwise by Village Engineer. Provide ductile iron riser tee on deeper installations.
- Terminate lateral pipe with a wooden 2x4 set one foot above finish grade.

- Lateral pipe locator wire and terminal post: No. 10 AWG single strand insulated copper wire and Copperhead Industries – Snake Pit Terminal Box, or approved equal.

WATER MAIN

GENERAL

- Only joint deflections within pipe manufacturer's specifications are permitted without fittings.
- Polyethylene wrap: Provide 8 mil on ductile iron pipe, valves, valve boxes, fittings, fire hydrant barrel sections, and curb boxes.
- Bedding & cover material: 3/8" crushed limestone chips to 12" above pipe (pea gravel is not acceptable).
- Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- Operation of valves: By Village representatives or agents unless allowed otherwise.
- One-hour pressure test: 150 psi with no loss.
- Leakage test (only if pressure test fails): Two hours at system pressure per Standard Specifications.
- Water services over 2-inch diameter shall meet the specifications for water main and include a gate valve/valve box at the point of connection to the water main.
- Water services equal or less than 2-inch diameter shall meet the specifications for water services and have a curb stop/service box placed one foot from the right-of-way line.

PIPE MATERIAL

- ~~Ductile iron: Conforming to AWWA C-151/ANSI A21.51, minimum Class 52.~~
- PVC: Conforming to AWWA C-900, class 150, SDR 18.
- Tracer wire shall be installed with PVC pipe, extend wire to hydrants terminated in a Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~4-inch diameter by 30-inch long PVC pipe with a threaded cap~~ set behind the hydrant.

LOCATOR WIRE

- Tracer locator wire: Install with PVC pipe, single strand blue insulated copper, minimum No. 10 AWG.
- Location: On top of PVC pipe and fittings, secure at min. 10-foot intervals.
- Terminal Box: Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~2-1/2 inch by 18-inch C.P. Test Services – Valvco.~~
- Extend locator wire to top of terminal boxes leaving 12 inches of slack for future connection and connect to terminal box.
- Secure terminal box to back side of fire hydrant barrel and all service curb stops and set top of box flush with finished grade. Connect service locator wire to water main locator wire.

FITTINGS

- Only American-made fittings, pipe, valves, and hydrants will be allowed.
- Ductile iron fittings: Meet AWWA C-110/ANSI A21.10 or A21.53.
- ~~All fittings shall be full-bodied styles.~~
- If a sleeve is required, a full-bodied solid sleeve shall be used.

- Fittings shall be polyethylene wrapped per Standard Specifications.
- Bolts and nuts: Cor-Blue or A-304 stainless steel, no substitutions.
- Use restrained joints on all fittings.
- Thrust blocking (in addition to restrained mechanical joints): Solid concrete masonry units or Class F poured concrete per Section 4.3.13 of the Standard Specifications. Wood thrust blocking will not be permitted.

VALVES

- 4-inch to 12-inch: Resilient wedge gate valve, non-rising stem meeting AWWA C-509, Clow Model 2639/2640, or approved equal.
- 14-inch and larger: Butterfly valve, Clow Model 4500, or approved equal.
- Provide restrained joints on all valve fittings.

VALVE BOXES

- Three-piece, Tyler Series 6860 with bottom section compatible with valve box stabilizer, or approved equal.
- Valve box stabilizer: metal "spider" type for gate valves or butterfly valve type by Adaptor, Inc., no substitutions.
- Provide bituminous coated carbon steel valve operating extension rods with 2-inch square operating nuts terminating within 2 inches below the lid for all main line valves. ~~Rod are buried deeper than 8 feet from top of pipe.~~
- Do not extend tracer wire into valve boxes.

TAPPING VALVE AND SLEEVES

- Two-piece bolted stainless steel type with mechanical joints.
- Sleeve Model/Manufacturer: Cascade CST extra heavy duty, or approved equal.
- Valve Model/Manufacturer: Clow F-5093 or Kennedy C950.

WATER SERVICES

- Pipe: Type K copper tubing or High Density Polyethylene tubing, SDR 9, 200 psi, copper tube sized.
- Size: 1-inch, 1 ½-inch, and 2-inch.
- Utilize stainless steel stiffeners of compatible size and connection type.
- Depth of bury: Between 6-feet and 6.5-feet from main to curb box.
- Service pipe shall be seamless from the main to the curb box.
- Service saddles for connecting to PVC pipes: Stainless steel saddle with O-ring and grade 30 rubber grid map; Cascade styles CSC1, CSC2, CS22, or approved equal.
- Corporation stops: McDonald No. 4701BQ ball valve with AWWA/CC taper thread inlet and compression connection outlet.
- Curb stops: McDonald No. 6106, or approved equal.
- Service boxes: Extension type with stationary rods, McDonald No. 5614 for 3/4" and 1" sizes and McDonald No. 5615 for 1-1/2" and 2" sizes.
- Polywrap service box.
- Place locator wire on top of water service lines and extend to terminal box adjacent to the service box.

FIRE HYDRANTS

- Model/Manufacturer: Mueller A-423.
- Color: Factory painted red with the nozzle caps and operating nut painted silver gray.
- Nozzle height: 18-inches to 26-inches to finish grade.

- Equip steamer nozzle with a factory installed 5" Storz Quick Connect.
- Standard hydrant extensions are required for hydrants with over 6 feet of cover, or where required to adjust nozzle height.
- Auxiliary valves: Connect directly to water main at an anchor tee.
- Hydrant lead pipe: ~~Class 52 ductile iron or~~ C-900 PVC with restrained joints.
- Hydrant leads and fittings: Restrain by Mega-lug gland or approved equal.
- Provide stop nut or factory-installed means of preventing damage to hydrant when torque is applied to close hydrant.
- Spacing: Maximum 400 feet (residential subdivisions).
- Place locator wire terminal boxes at all hydrant locations.
- Install 3/8" diameter, 5' long fiberglass hydrant marker with spring and reflective bands on all hydrants.

STORM SEWER

GENERAL

- Compacted granular backfill, topped with 10 to 14-inches of 1-1/4" dense graded aggregate base course material is required below or within 4-feet of any paved surface. Use only clean graded sand, clean granular bank run, aggregate slurry, or excavated granular material, with Village Engineer's approval.
- Consolidation of backfill: 95% standard Proctor density for imported granular material and 100% for excavated material of existing aggregate material in the adjacent trench wall. Use mechanical means, unless allowed otherwise.
- Provide sump pump connection/storm sewer pipes for all new homes with flexible watertight tee service connector, KOR-N-TEE by NPC Systems, or approved equal.

PIPE MATERIAL

- Within road right-of-way: Minimum 12-inch reinforced concrete pipe, minimum class III, conforming to ASTM C76 or ASTM C507.
- Outside road right-of-way: Alternate pipe material, such as HDPE ADS N-12, may be permitted by Village Engineer.
- Rubber O-ring gasket pipe required.

MANHOLE MATERIALS

- Design flat top slabs to resist H-20 loading.
- Frames and closed lids: Heavy duty, indented top solid lid, non-rocking, Neenah R-1580 with Type B lid or approved equal.
- Frames and open lids: Heavy duty, Neenah R-2504 with Type D grates, or approved equal.
- Beehive grate manhole covers: Neenah R-2560 E1 or approved equal.
- Manholes shall be 4'-0" diameter minimum.
- Joints for manhole riser section shall be made with non-shrink grout, rubber "O"-ring gaskets, a continuous ring of butly rubber sealant (EZ-Stik or Kent Seal in rope form) or approved equal.
- Adjusting rings and manhole frames shall be set with non-shrink grout or butyl rubber sealant troweled into a 1/4-inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent Seal butyl base sealant in trowelable grade or approved equal.

CATCH BASINS

- 2'x3' precast concrete box with a minimum 12-inch sump for catch basins in the curb line.
- 2' diameter precast concrete structure with a minimum 12-inch sump for catch basins in grassed areas.
- Do not place catch basins within the entire curb return at intersections, if possible.
- Curb inlet frames: Neenah R-3067-L.
- Turf area drainage grates: Beehive type, Neenah R-2560 E1 or approved equal.

DRIVEWAY CULVERTS

- Minimum 15-inch diameter CMP or RCP with flared end sections.

STORM LATERALS

- Minimum 6-inch PVC SDR-26.
- Provide wye connections unless allowed otherwise.
- Terminate lateral pipe with a wooden 2x4 set one foot above finish grade.
- Lateral pipe locator wire and terminal post: No. 10 AWG single strand insulated copper wire and Copperhead Industries – Snake Pit Terminal Box, or approved equal. ~~2-1/2 inch by 18 inch C.P. Test Services – Valvco terminal box.~~

STREET PAVEMENTS

PAVEMENT MARKINGS

- Epoxy pavement markings required for streets.

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C4.2

VILLAGE OF SOMERS - STANDARD MATERIAL SPECIFICATION CHECKLIST
EXCEL JOB #: 2266000

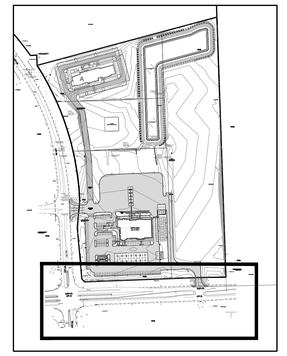
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT



KEY PLAN
NTS

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

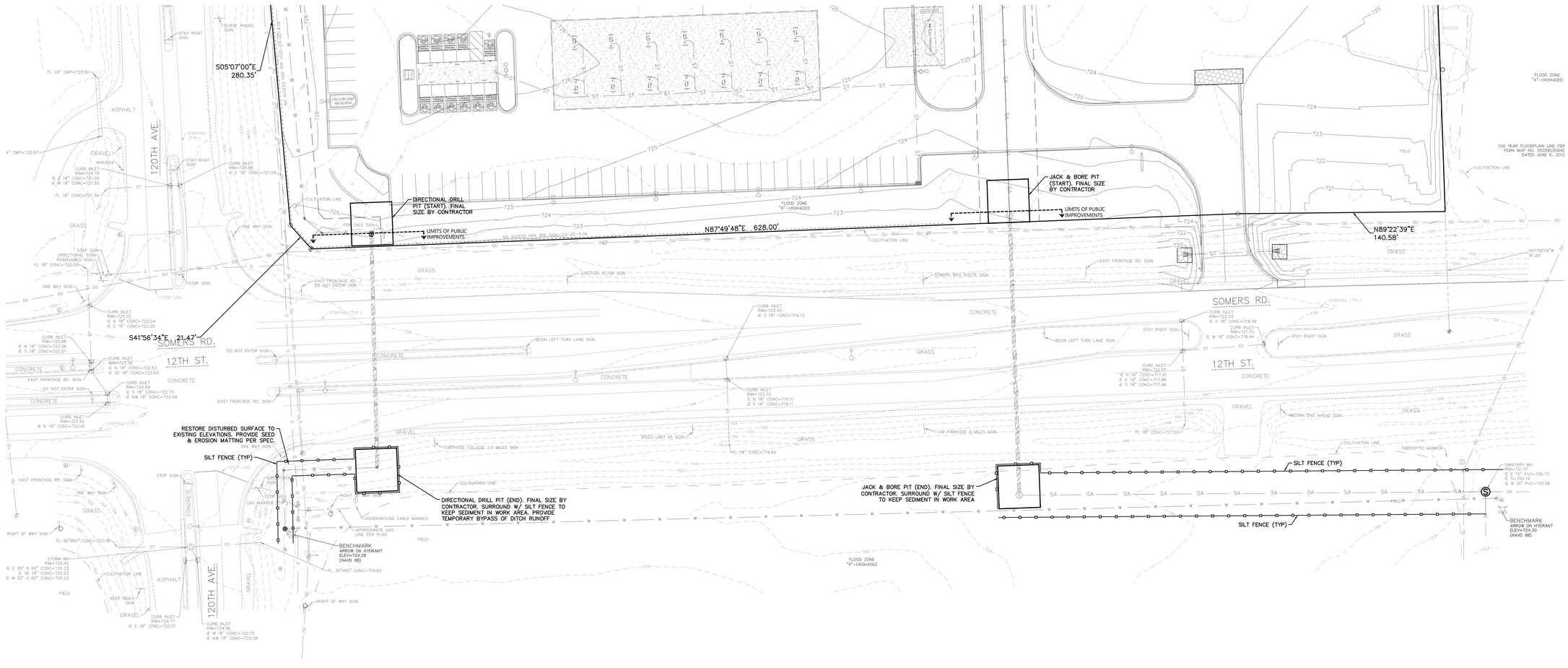
www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR: GOLDEN OIL - SOMERS GATEWAY CENTER SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C4.3



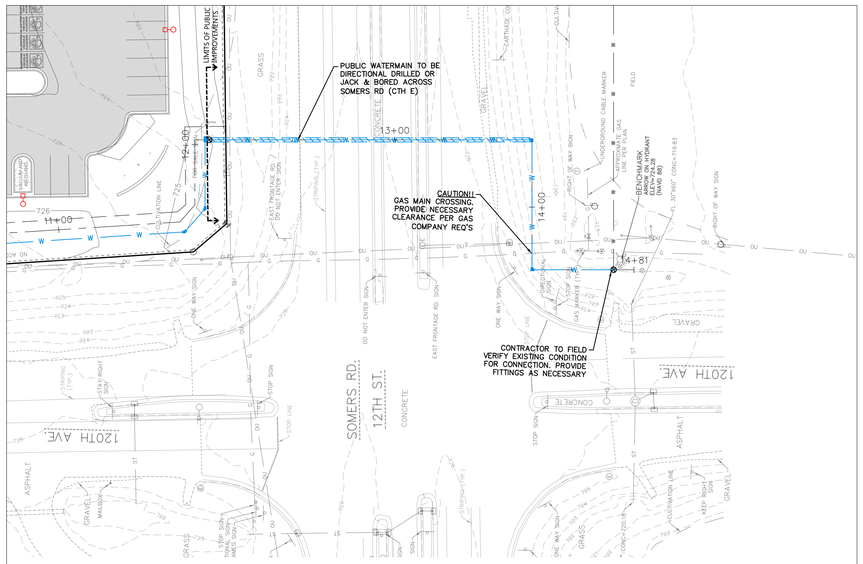
NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

SITE, GRADING, EROSION CONTROL, AND RESTORATION PLAN

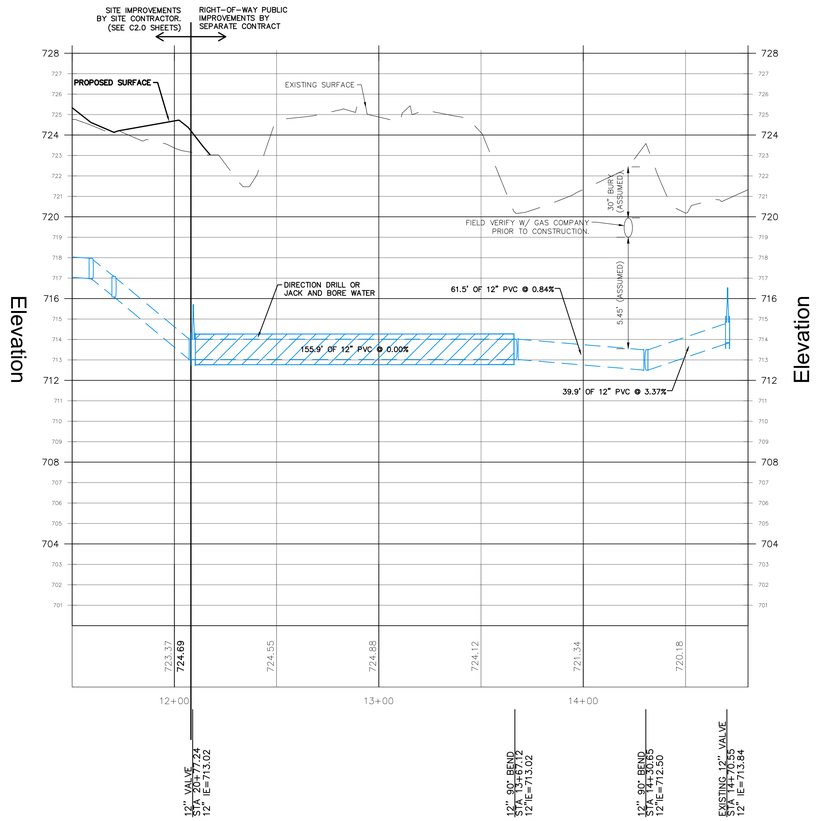
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



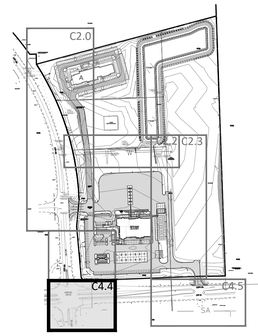
PLAN VIEW

SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

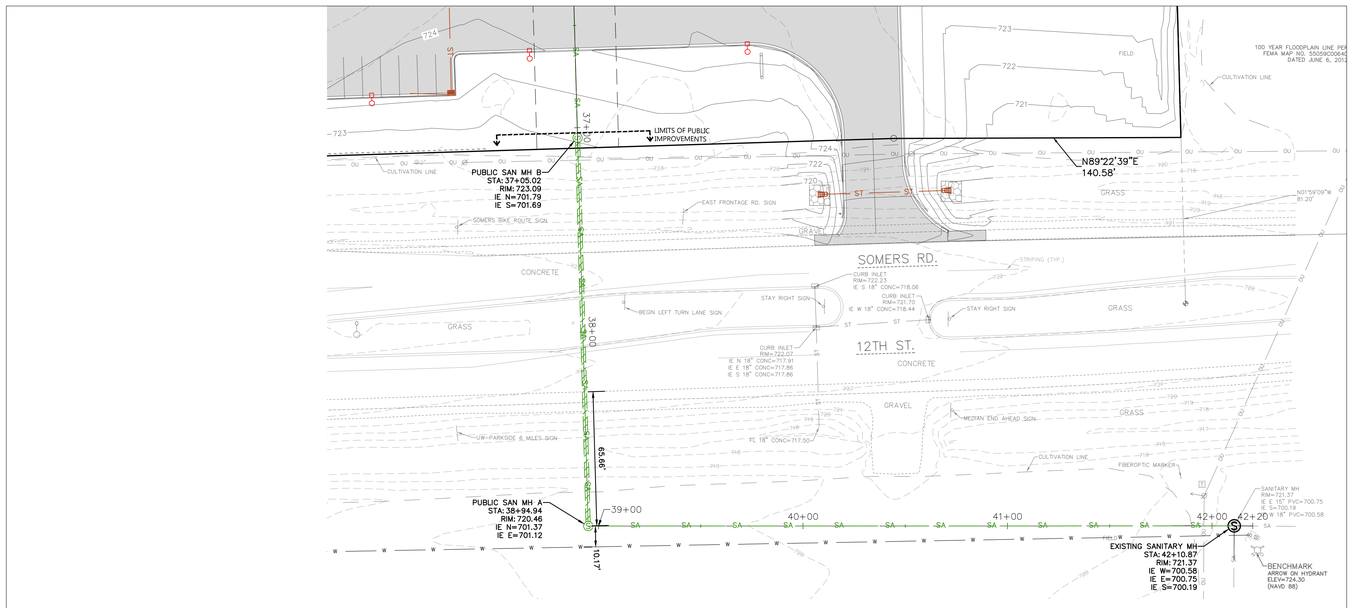
PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: C4.4

NORTH
1"= 30'
30' 0 30' 60'
SCALE FEET

PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 12+08-14+81

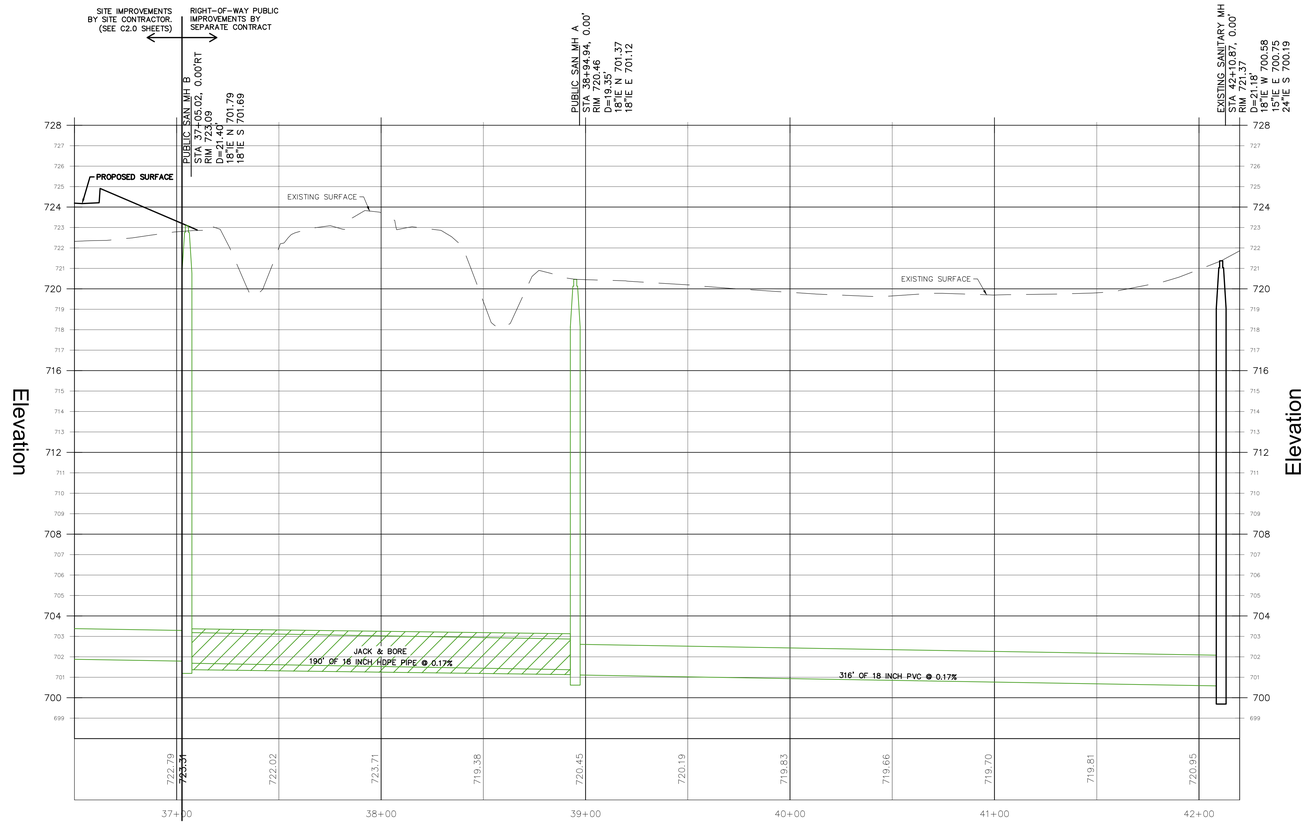
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



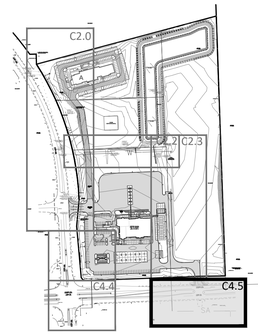
PLAN VIEW

SCALE: 1"=30'



PROFILE VIEW

HORIZONTAL: 1"=30'
VERTICAL: 1"=3'



PUBLIC MAIN EXTENSION KEY PLAN

NTS

VERTICAL DATUM CONVERSION

1. SURVEY OF THE PROPOSED PROJECT WAS COMPLETED ON NAVD88
2. NGVD29 = NAVD88 + 0.17 FT

Keller

PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS GATEWAY CENTER

SOMERS WISCONSIN

"COPYRIGHT NOTICE"

This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C4.5

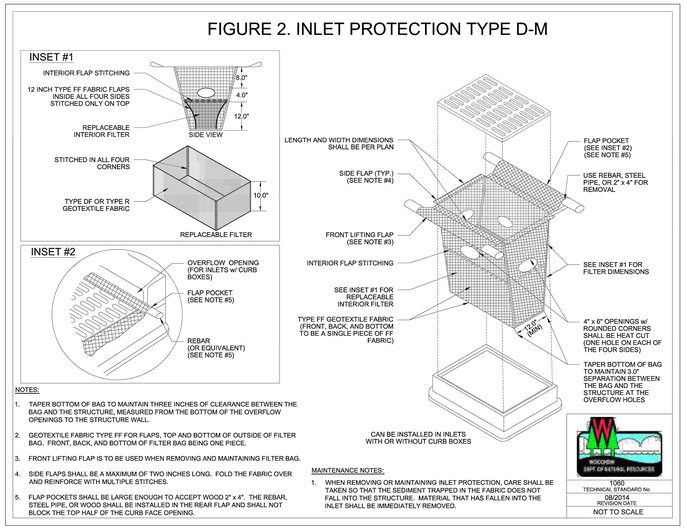
NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

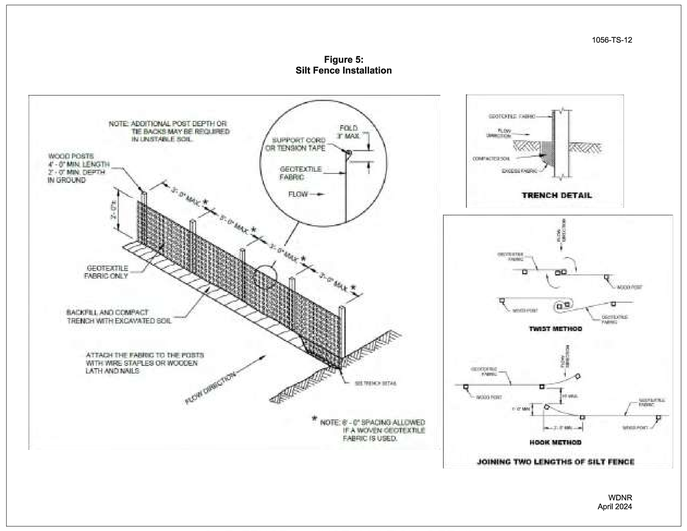
PUBLIC UTILITY EXTENSION PLAN & PROFILE - STA 37+06 - 42+20

EXCEL JOB #: 2266000

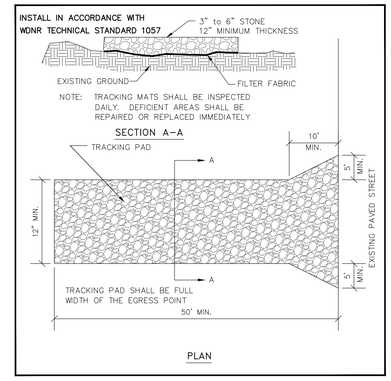
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



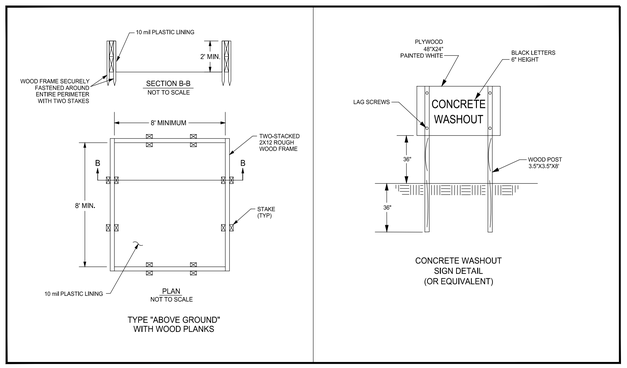
INLET PROTECTION DETAIL
NO SCALE



SILT FENCE – INSTALLATION DETAIL
NO SCALE

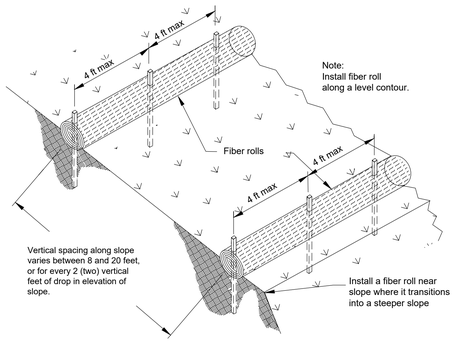


TRACKPAD DETAILS
NO SCALE

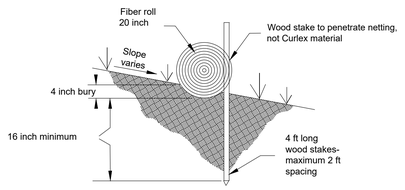


CONTRACTOR TO ADHERE TO WI DNR STANDARDS

CONCRETE WASHOUT DETAIL
NO SCALE



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



SEDIMENT LOG INSTALLATION
NOT TO SCALE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1053 (CHANNEL EROSION MAT).

VARIATIONS IN THE DIMENSIONS OR MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.

LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.

JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.

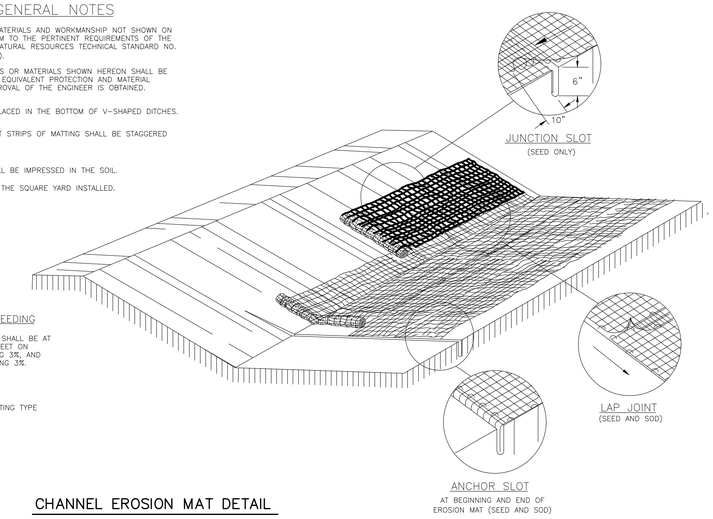
EDGES OF EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

EROSION MAT SHALL PAID BY THE SQUARE YARD INSTALLED.

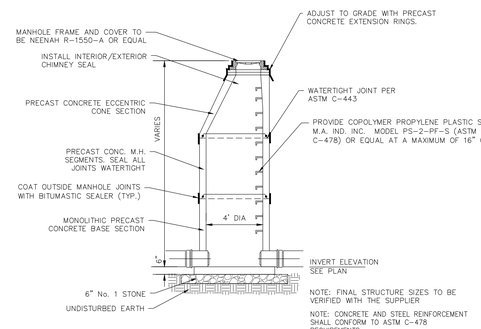
EROSION MAT OVER SEEDING

JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 3%, AND 50 FEET ON GRADES EXCEEDING 3%.

NOTE:
SEE SPECIFICATIONS FOR MATTING TYPE



CHANNEL EROSION MAT DETAIL
NOT TO SCALE



PUBLIC SANITARY MANHOLE W/ CONE SECTION DETAIL
NO SCALE

DETAILS
EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

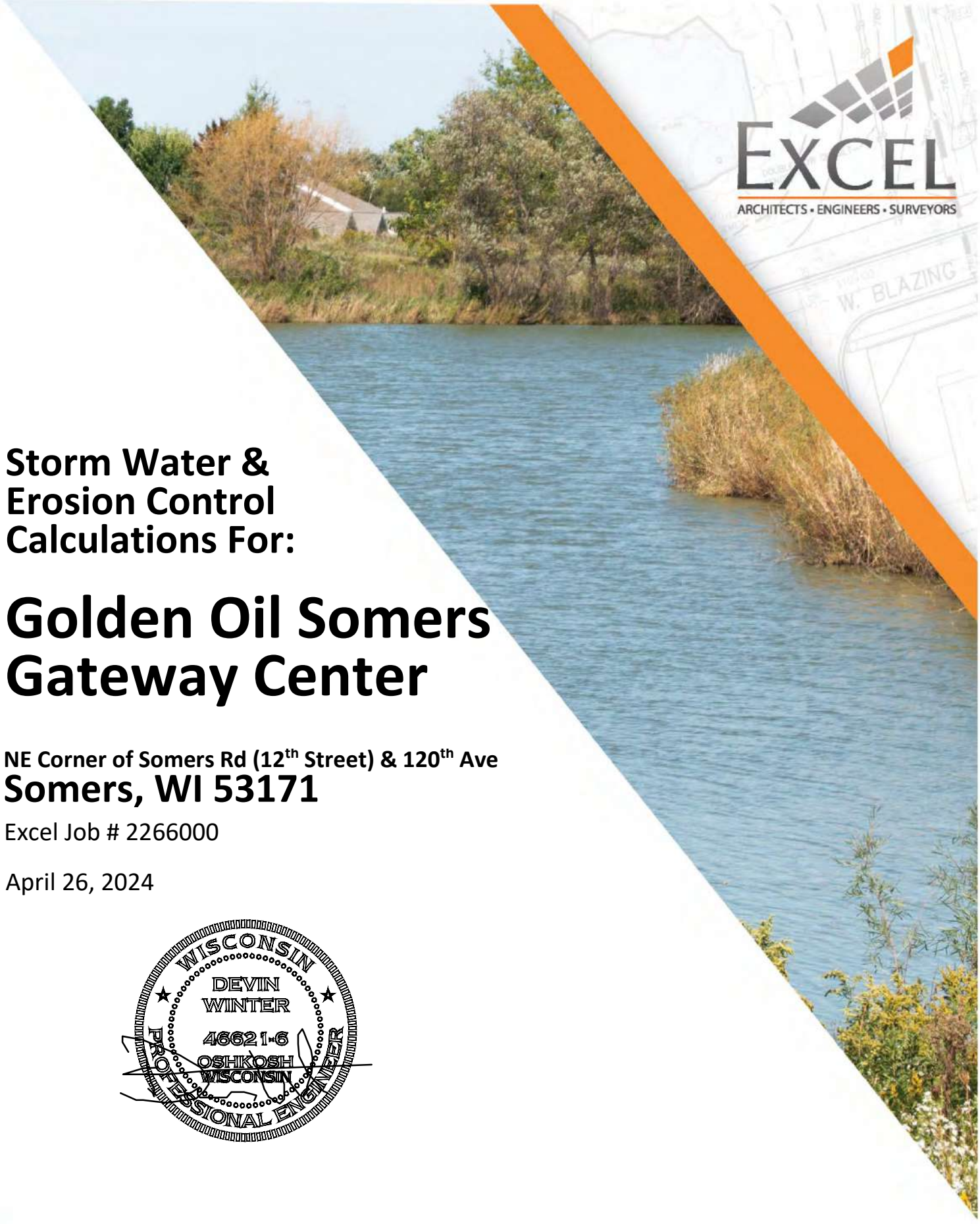
Keller
PLANNERS | ARCHITECTS | BUILDERS
FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004
MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245
MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740
WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181
www.kellerbuilds.com

PROPOSED PUBLIC IMPROVEMENTS FOR:
GOLDEN OIL - SOMERS GATEWAY CENTER
SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APR. 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR: --------
SUPERVISOR: --------
PRELIMINARY NO: P22188
CONTRACT NO: --------
DATE: APR. 26, 2024
SHEET: C4.6



EXCEL
ARCHITECTS • ENGINEERS • SURVEYORS

Storm Water & Erosion Control Calculations For:

Golden Oil Somers Gateway Center

NE Corner of Somers Rd (12th Street) & 120th Ave
Somers, WI 53171

Excel Job # 2266000

April 26, 2024

WISCONSIN
DEVIN WINTER
46621-6
OSHKOSH WISCONSIN
PROFESSIONAL ENGINEER

Prepared by Devin Winter, P.E.
100 Camelot Drive • Fond du Lac, WI 54935
920-926-9800 • www.excelengineer.com

Table of Contents

0.0 Introduction ____ 1

0.1 Existing Conditions ____ 1

0.2 Proposed Project Overview ____ 1

1.0 Design Criteria ____ 2

1.1 Soils ____ 2

1.2 Rainfall Data ____ 2

2.0 Stormwater Management Requirements ____ 2

2.1 Project Overview ____ 2

2.2 Peak Discharge ____ 3

2.3 Stormwater Quality ____ 4

2.4 Infiltration ____ 5

3.0 Storm Sewer Design ____ 5

3.1 Emergency Overflow Route ____ 5

4.0 Erosion Control ____ 5

Appendices

Appendix A: Pre-Development Area(s)
Appendix B: Post Development Area(s)
Appendix C: Peak Discharge Calculations
Appendix D: Web Soil Survey Map
Appendix E: Geotechnical Report & Stormwater Soil Evaluation
Appendix F: Storm Sewer Basin Map
Appendix G: Storm Sewer TR-55 Calculations
Appendix H: Storm Sewer Manning's Spreadsheet
Appendix I: SLAMM Basin Maps
Appendix J: SLAMM Input/ Output Information
Appendix K: USLE Calculations
Appendix L: Assured Wetland Delineation Report & Corps AJD Determination
Appendix M: Post Construction Operation and Maintenance Plan

0.0 Introduction

0.1 Existing Conditions

The proposed development is located on the north side of 12th Street (Somers Rd/CTH E) and east side of 120th Avenue (E. Frontage Rd) in the Village of Somers, Wisconsin. The project site is bound by agricultural land on the north and east. The existing site is currently vacant contains agricultural land. The site currently drains in all directions with all runoff contributing to the Kilbourn Road Ditch located approximately 1,000 feet east of the project site. Wetland areas exist on the project site and have been delineated by assured delineator Chad Fradette of Evergreen Consultants, LLC in September of 2022. An approved jurisdictional determination (AJD) was received by the US Army Corps of Engineers in 2022 with confirmation that Wetland 2,3, and 4 are not waters of the United States. The existing site can be seen in Appendix A.

- Property Area: 25.00 acres

0.2 Proposed Project Overview

The proposed project includes the master planning of the overall 25 acre parcel that is proposed to be split into four (4) lots via certified survey map (CSM). Upon completion of the CSM, wetland permitting will occur and subsequently stormwater permitting of the overall master development.

The proposed development on Lot 1 (primary development) will include a proposed building with parking located to the south and west sides of the site. Petroleum pumps are proposed on the south side of the site and diesel pumps are proposed on the north side of the site. Two (2) proposed single lane drive-throughs will be located on the west and northwest side of the building. The proposed development will drain to various inlets and grassed swales that will drain stormwater to the centrally located wet detention pond. Oil/grease collection for the fueling station will be located at the inlet of capture prior to discharging to the site storm sewer system. The stormwater management detention ponds will reduce peak flows to allowable runoff rates of the Des Plaines watershed as required by the village. The existing site consists of 100% existing open space (agricultural lands). The proposed site has been included in the stormwater calculations at 85% impervious surface coverage and 15% open space. The proposed site can be seen in Appendix B.

- Disturbed Area: +/- 26 acres

1.0 Design Criteria

1.1 Soils

Soil characteristics were determined using the web soil survey. See Table 1 for a summary of the soils and hydrologic ratings indicated by the web soil survey and Appendix D for web soil survey map.

Table 1: Web Soil Survey

MAP SYMBOL	SOIL TYPE	HYDROLOGIC RATING
AtA	Ashkum silty clay loam	C/D
EtA	Elliott silt loam	C/D
MeB	Markham silt loam 2-6%	C
MeB2	Markham silt loam 2-6%, eroded	C
OzaB2	Ozaukee silt loam	C

Soil borings are currently being completed for the project site. The complete geotechnical investigation with boring logs can be seen in Appendix E when it is received.

1.2 Rainfall Data

NOAA Atlas 14 with an MSE 3 distribution was used for stormwater calculations.

Table 2: NOAA Atlas 14 24-hour Rainfall Depth

DESIGN STORM	RAINFALL DEPTH (INCHES)
1-YEAR	2.38
2-YEAR	2.69
10-YEAR	3.76
100-YEAR	5.85

2.0 Stormwater Management Requirements

2.1 Project Overview

The proposed project stormwater requirements will be met with a wet detention pond. Wetlands have been delineated on site and will be submitted separately for wetland exemption as the US Army Corps of Engineers have determined the affected wetlands to be non-jurisdictional. See documentation in Appendix L. There is currently floodplain on site per the FEMA Firmette. Floodplain No-Impact Analysis has been completed concurrently with the design of the project and will be submitted to the Village, DNR, FEMA for approval. The analysis

results show that filling of the outer extents of the floodplain will not impact the floodplain elevation of the Kilbourn Road Ditch. A certified letter of map revision (CLOMR) and subsequently a letter of map revision (LOMR) are required by the Village to remove the portions of the property approved for fill. Refer to the Floodplain No-Impact Analysis Report submitted to the Village of Somers.

2.2 Peak Discharge

Village of Somers - Release Rate (Des Plaines Watershed): The maximum runoff release rate is 0.04 cubic feet per second per acre for the 2-year 24-hour storm and 0.30 cubic feet per second per acre for the 100-year 24-hour storm for the post-development runoff condition.

Des Plaines Watershed Requirements (based on acres of development):

2-year Allowable release rate = 22.20 acres x 0.04 cfs/acre = 0.88 cfs

100-year Allowable release rate = 22.20 acres x 0.30 cfs/acre = 6.66 cfs

Wisconsin DNR- Maintain or reduce the 1-yr and 2-yr, 24-hour post development peak runoff discharge rates to the 1-yr and 2-yr, 24-hour predevelopment peak runoff discharge rates respectively.

Table 3: Runoff Summary

	PREDEVELOPMENT (HYDRO #6)		POST DEVELOPMENT (HYDRO #11)		
DESIGN STORM	**Peak Discharge (cfs)**	**Peak Discharge (Before Controls) (cfs)**	**Peak Discharge (After Controls) (cfs)**	**Allowable Discharge Rate (cfs)**	**Ponding Elevation (ft)**
1YR-24 HR	**21.08**	74.06	**.43**	-	**719.45**
2YR-24 HR	**27.62**	84.39	**0.52**	**0.88**	**719.65**
10YR-24HR	**52.89**	119.82	**0.74**	-	**720.33**
100YR-24HR	**107.97**	188.43	**3.41**	**6.66**	**721.35**

Table 3 shows that post development release rates will be less than predevelopment release rates and the allowable release for the 2-year and 100-year rainfall events due to the requirements of the Des Plaines Basin. See the construction plans for the site information, Appendix C for peak discharge calculations, and Appendix B for the drainage basin map.

Therefore, peak discharge requirements are met.

2.3 Stormwater Quality

Village of Somers- The site is considered a new development project and will be required to remove 80% of total suspended solids (TSS) from site runoff. Due to the fueling use of the property, the fueling areas will discharge to area storm sewer inlets and oil/grease shall be removed prior to site discharge.

Wisconsin DNR- The site is considered a new development project and will be required to remove 80% of total suspended solids (TSS) from site runoff.

The site will treat stormwater using a wet pond. Oil & grease will be removed at the inlet structure via the use of Flexstorm Pure Inlet filters (or equal). See the proposed plans for additional information. See Table 4 for a summary of the stormwater quality requirements and the annual loading removed by the stormwater management BMP. See Appendix I for the SLAMM basin maps and Appendix J for SLAMM input & output information.

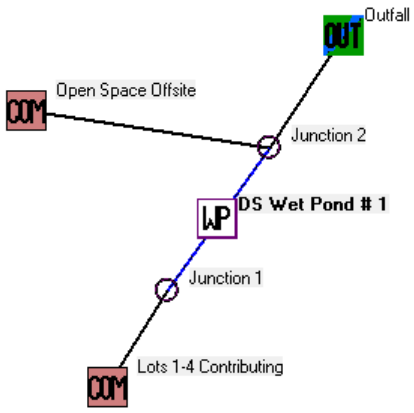


Figure 1: WinSLAMM Routing Diagram

Table 4: Stormwater Quality Summary

TSS GENERATED FROM PAVEMENT & PARKING AREAS	TSS REMOVAL REQUIRED (LBS)	TSS REMOVAL PROVIDED (LBS)
13,507	**10,806**	**11,398**

Since 11,398 lbs (93.15%) of TSS is removed and exceeds 10,806 lbs (80%) of TSS removal that is required, stormwater quality requirements are met.

2.4 Infiltration

Wisconsin DNR and Village of Somers - The proposed site is exempt from infiltration requirements NR 151.124(4)(c)2 and Section 17.23(D)(1)(3)(d)(iii)b of the Village of Somers stormwater management code. Borings completed for the project indicate that the soils onsite are a type of clay soil.

Therefore, Infiltration requirements are met.

3.0 Storm Sewer Design

The site storm sewer has been designed to convey the 10-year, 24-hour post development runoff where overland routes exist to the stormwater management facility and the 100-year 24-hour post development storm in areas that do not provide an overland route to the stormwater management facility. See Appendix F, Appendix G, and Appendix H for pipe drainage areas, pipe sizing calculations, and pipe sizing spreadsheet.

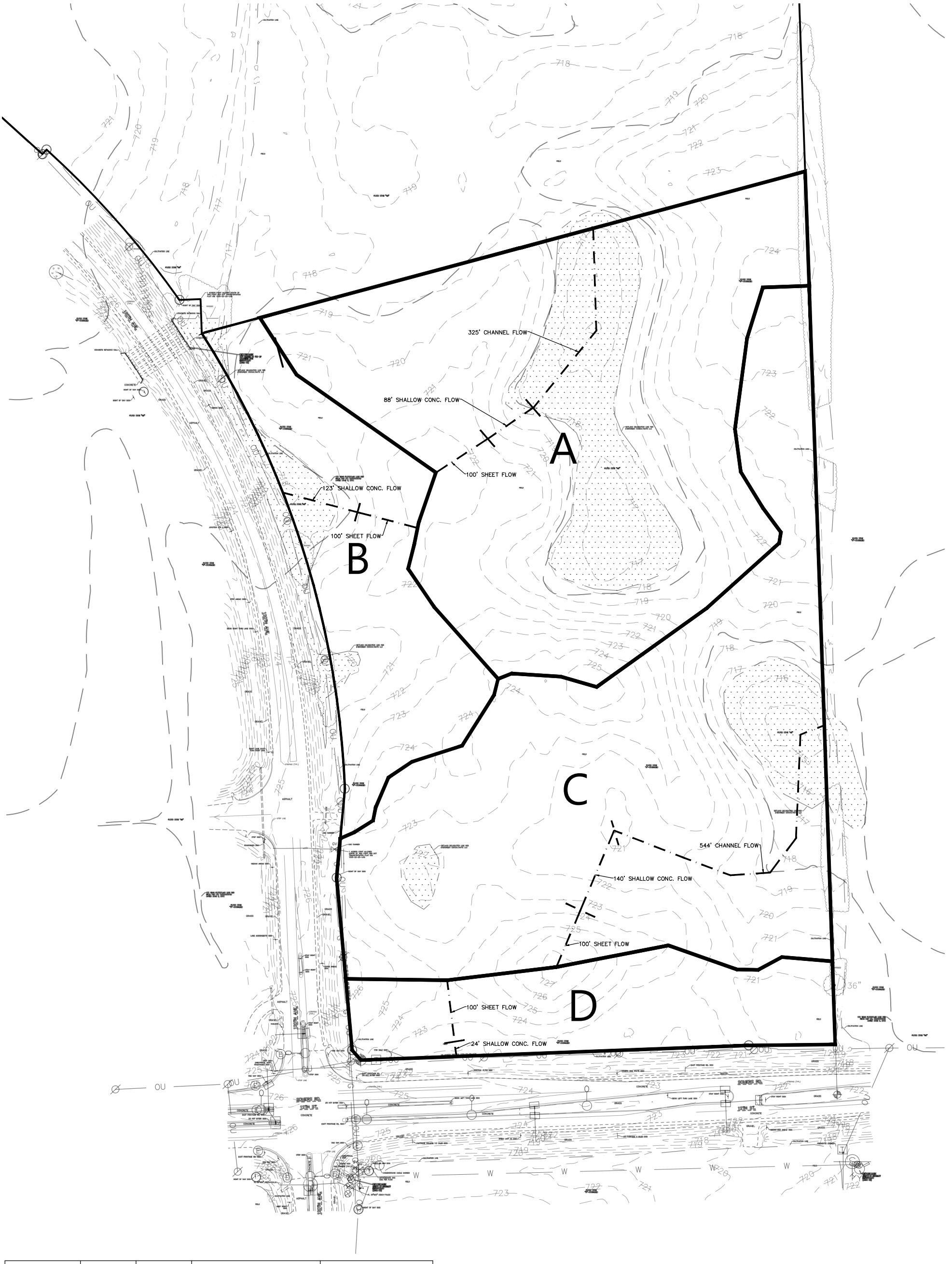
3.1 Emergency Overflow Route

The emergency overflow route is to the north, over the curb and gutter. Maximum ponding onsite will be less than 9” in drive aisles and 6” in parking stalls.

4.0 Erosion Control

The erosion control specifications, construction sequence, site stabilization notes, seeding notes, dewatering notes, and post construction and maintenance plan will be included on sheet C0.1 of the construction plan set and within this stormwater management report.

Appendix A: Pre-Development Area(s)



PRE BASIN	TOTAL (SF)	TOTAL (AC)	CROPLAND (C SOIL) (SF)	CROPLAND (C SOIL) (AC)
A	419,843	9.64	419,843	9.64
B	143,592	3.30	143,592	3.30
C	417,258	9.58	417,258	9.58
D	108,092	2.48	108,092	2.48
CURVE NUMBER	-		78	

PRE-DEVELOPMENT BASIN AREA(S)

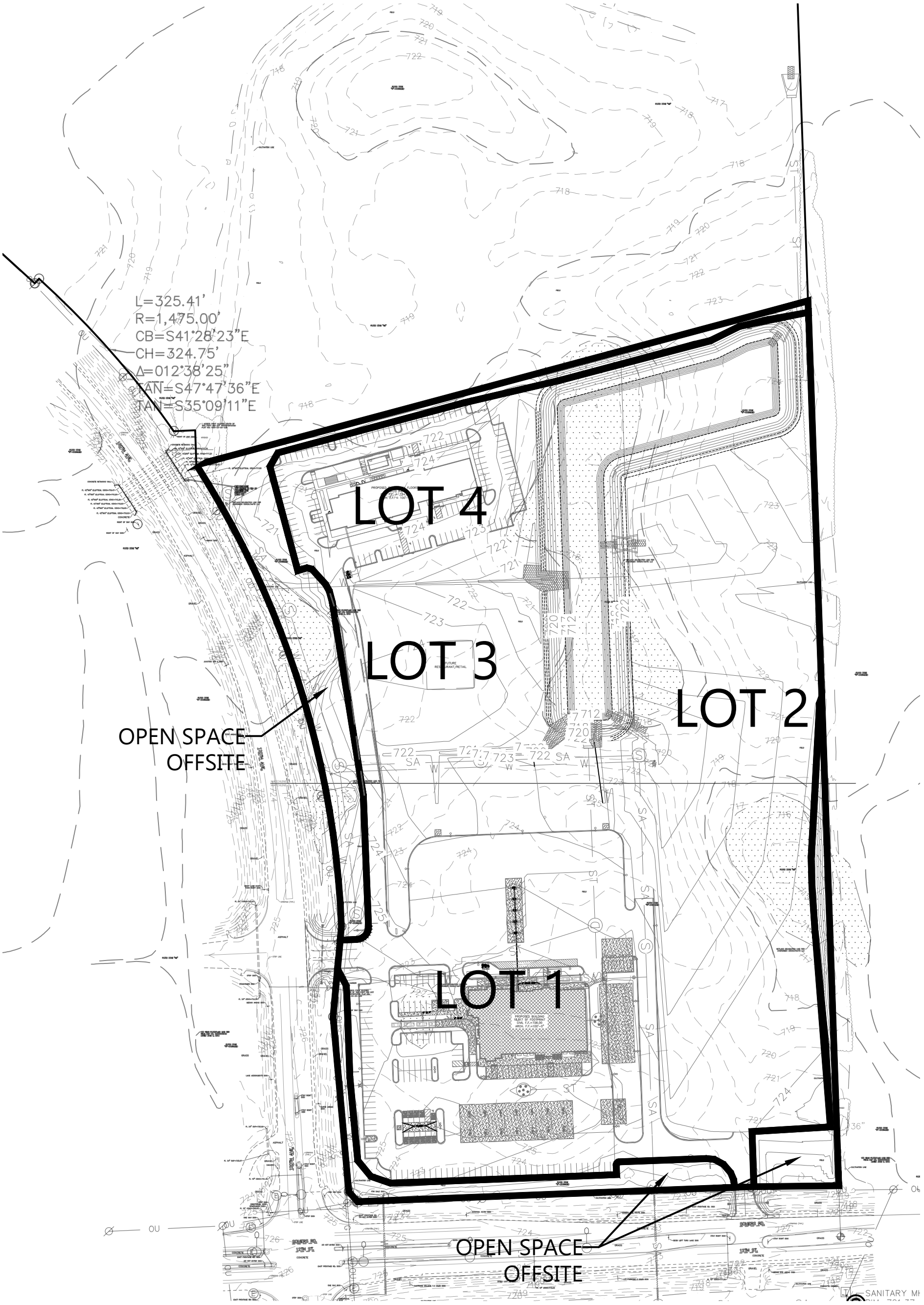
NORTH

1"= 150'

150' 0 150' 300'

SCALE 1"=150' (11X17) FEET

Appendix B: Post Development Area(s)



LOT	TOTAL (SF)	TOTAL (AC)	* PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
1 *	367,174	8.43	312098	7.16	55076	1.26
2 *	372,632	8.55	316737	7.27	55895	1.28
3 *	142,206	3.26	120875	2.77	21331	0.49
4 *	206,997	4.75	175947	4.04	31050	0.71
TOTAL	1,089,009	25	925,658	21.25	163,351	3.75
CURVE NUMBER	0		98		74	

* 85% LOT COVERAGE ASSUMED

BASIN	TOTAL (SF)	TOTAL (AC)	* PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
1,2,3,4 (TO POND)	966,988	22.20	925658	21.25	41330	0.95
OFFSITE	122,746	8.55	0	0.00	122746	2.82
CURVE NUMBER	0		98		74	

POST-DEVELOPMENT BASIN AREA(S)

1"= 150'

150' 0 150' 300'

SCALE 1"=150' (11X17) FEET

Appendix C: Peak Discharge Calculations

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	7.657	10.05	-------	-------	19.14	-------	-------	39.02	Pre Basin A
2	SCS Runoff	------	3.282	4.288	-------	-------	8.114	-------	-------	16.52	Pre Basin B
3	SCS Runoff	------	8.289	10.84	-------	-------	20.62	-------	-------	42.02	Pre Basin C
4	SCS Runoff	------	2.467	3.222	-------	-------	6.098	-------	-------	12.41	Pre Basin D
5	Combine	1, 2,	10.51	13.82	-------	-------	26.42	-------	-------	53.72	Pre-Development to North (A/B)
6	Combine	1, 2, 3, 4,	21.08	27.62	-------	-------	52.89	-------	-------	107.97	Total Pre
8	SCS Runoff	------	74.06	84.39	-------	-------	119.82	-------	-------	188.43	Lot 1-4 Contributing
9	SCS Runoff	------	2.567	3.481	-------	-------	7.229	-------	-------	15.62	Post Offsite - Lawn Only
11	Reservoir	8	0.430	0.516	-------	-------	0.740	-------	-------	3.414	Pond Discharge
12	Combine	9, 11	2.567	3.481	-------	-------	7.588	-------	-------	16.30	Total Post

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	7.657	2	736	24,888	------	------	------	Pre Basin A
2	SCS Runoff	3.282	2	732	8,786	------	------	------	Pre Basin B
3	SCS Runoff	8.289	2	734	24,114	------	------	------	Pre Basin C
4	SCS Runoff	2.467	2	732	6,603	------	------	------	Pre Basin D
5	Combine	10.51	2	734	33,673	1, 2,	------	------	Pre-Development to North (A/B)
6	Combine	21.08	2	734	64,390	1, 2, 3, 4,	------	------	Total Pre
8	SCS Runoff	74.06	2	726	154,519	------	------	------	Lot 1-4 Contributing
9	SCS Runoff	2.567	2	728	5,201	------	------	------	Post Offsite - Lawn Only
11	Reservoir	0.430	2	1250	60,445	8	719.45	139,080	Pond Discharge
12	Combine	2.567	2	728	65,646	9, 11	------	------	Total Post

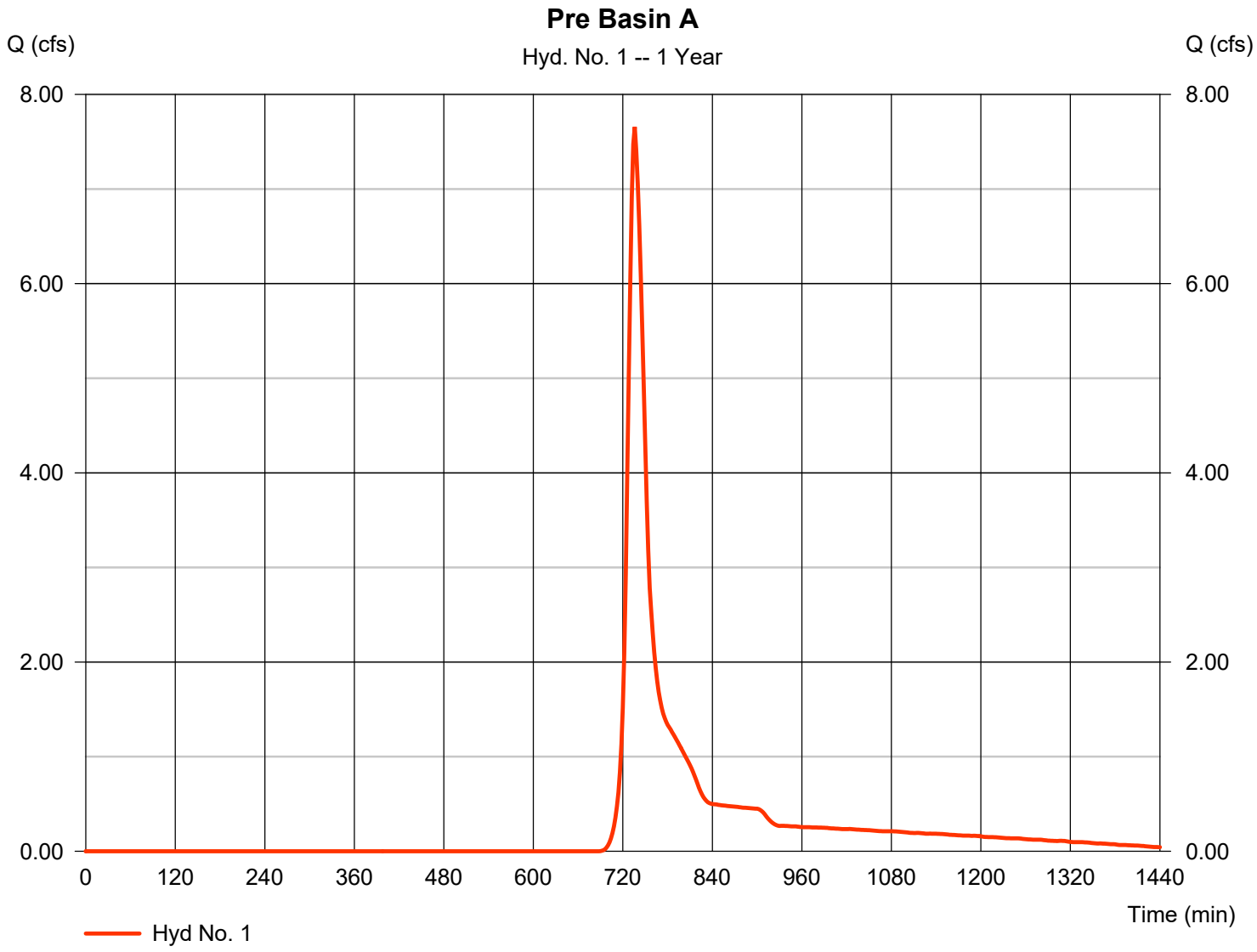
Hydrograph Report

Hyd. No. 1

Pre Basin A

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.657 cfs
Storm frequency	=	1 yrs	Time to peak	=	736 min
Time interval	=	2 min	Hyd. volume	=	24,888 cuft
Drainage area	=	9.640 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	18.70 min
Total precip.	=	2.38 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.640 x 78)] / 9.640



TR55 Tc Worksheet

Hyd. No. 1

Pre Basin A

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.170		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.69		0.00		0.00		
Land slope (%)	= 1.60		0.00		0.00		
Travel Time (min)	**= 12.91**	**+**	**0.00**	**+**	**0.00**	**=**	**12.91**
Shallow Concentrated Flow							
Flow length (ft)	= 88.00		0.00		0.00		
Watercourse slope (%)	= 3.20		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.89		0.00		0.00		
Travel Time (min)	**= 0.51**	**+**	**0.00**	**+**	**0.00**	**=**	**0.51**
Channel Flow							
X sectional flow area (sqft)	= 40.00		0.00		0.00		
Wetted perimeter (ft)	= 80.00		0.00		0.00		
Channel slope (%)	= 0.30		0.00		0.00		
Manning's n-value	= 0.050		0.015		0.015		
Velocity (ft/s)	=1.03						
			0.00				
					0.00		
Flow length (ft)	({0})325.0		0.0		0.0		
Travel Time (min)	**= 5.28**	**+**	**0.00**	**+**	**0.00**	**=**	**5.28**

Total Travel Time, Tc ..... 18.70 min

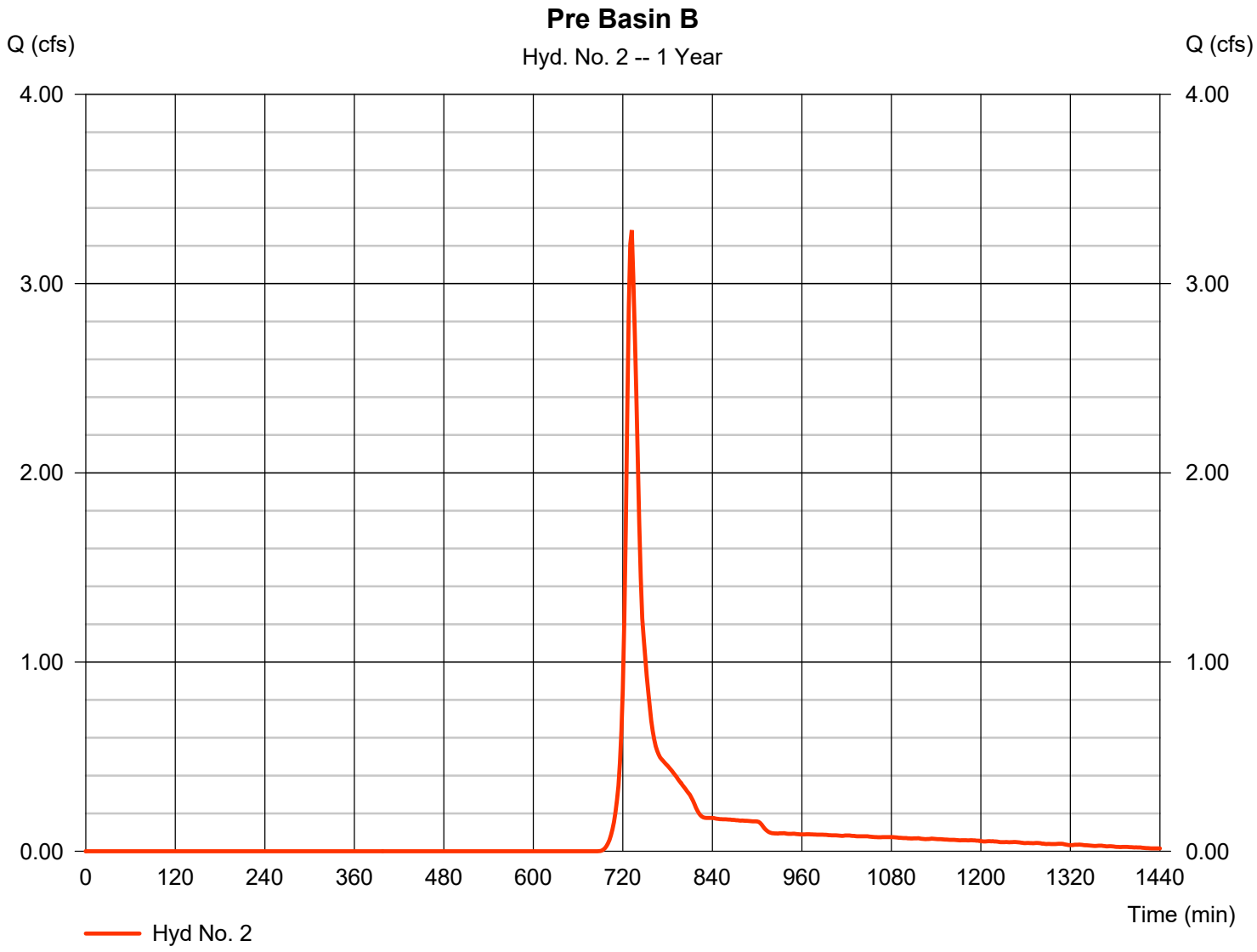
Hydrograph Report

Hyd. No. 2

Pre Basin B

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.282 cfs
Storm frequency	=	1 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	8,786 cuft
Drainage area	=	3.300 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	12.10 min
Total precip.	=	2.38 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(3.300 x 78)] / 3.300



TR55 Tc Worksheet

Hyd. No. 2

Pre Basin B

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.170		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.69		0.00		0.00		
Land slope (%)	= 2.30		0.00		0.00		
Travel Time (min)	**= 11.17**	**+**	**0.00**	**+**	**0.00**	**=**	**11.17**
Shallow Concentrated Flow							
Flow length (ft)	= 123.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.10		0.00		0.00		
Travel Time (min)	**= 0.97**	**+**	**0.00**	**+**	**0.00**	**=**	**0.97**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 12.10 min

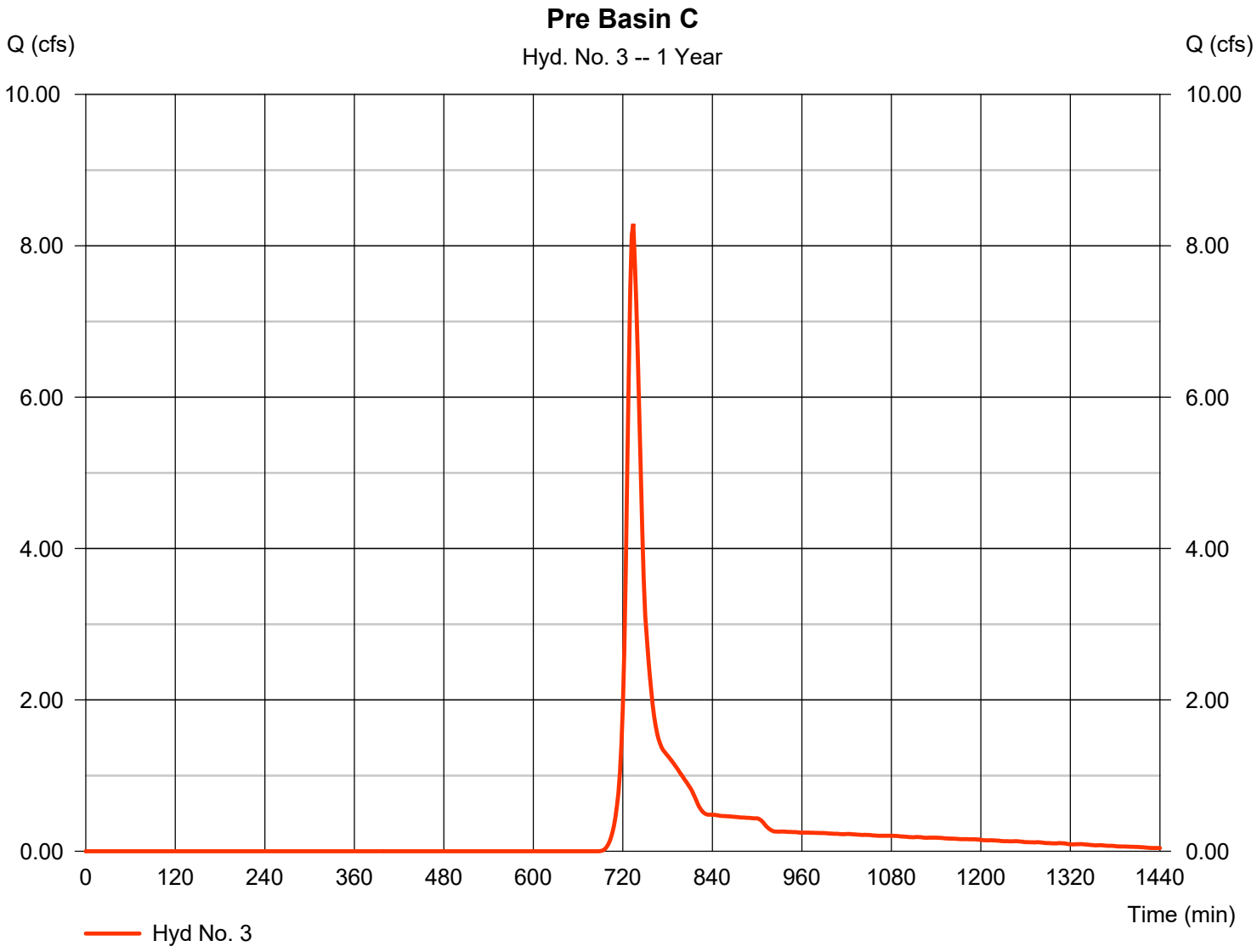
Hydrograph Report

Hyd. No. 3

Pre Basin C

Hydrograph type	=	SCS Runoff	Peak discharge	=	8.289 cfs
Storm frequency	=	1 yrs	Time to peak	=	734 min
Time interval	=	2 min	Hyd. volume	=	24,114 cuft
Drainage area	=	9.580 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	15.10 min
Total precip.	=	2.38 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.580 x 78)] / 9.580



TR55 Tc Worksheet

Hyd. No. 3

Pre Basin C

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.170		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.69		0.00		0.00		
Land slope (%)	= 3.70		0.00		0.00		
Travel Time (min)	**= 9.24**	**+**	**0.00**	**+**	**0.00**	**=**	**9.24**
Shallow Concentrated Flow							
Flow length (ft)	= 140.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.28		0.00		0.00		
Travel Time (min)	**= 1.02**	**+**	**0.00**	**+**	**0.00**	**=**	**1.02**
Channel Flow							
X sectional flow area (sqft)	= 40.00		0.00		0.00		
Wetted perimeter (ft)	= 80.00		0.00		0.00		
Channel slope (%)	= 1.00		0.00		0.00		
Manning's n-value	= 0.050		0.015		0.015		
Velocity (ft/s)	=1.87						
			0.00				
					0.00		
Flow length (ft)	({0})544.0		0.0		0.0		
Travel Time (min)	**= 4.84**	**+**	**0.00**	**+**	**0.00**	**=**	**4.84**

Total Travel Time, Tc ..... 15.10 min

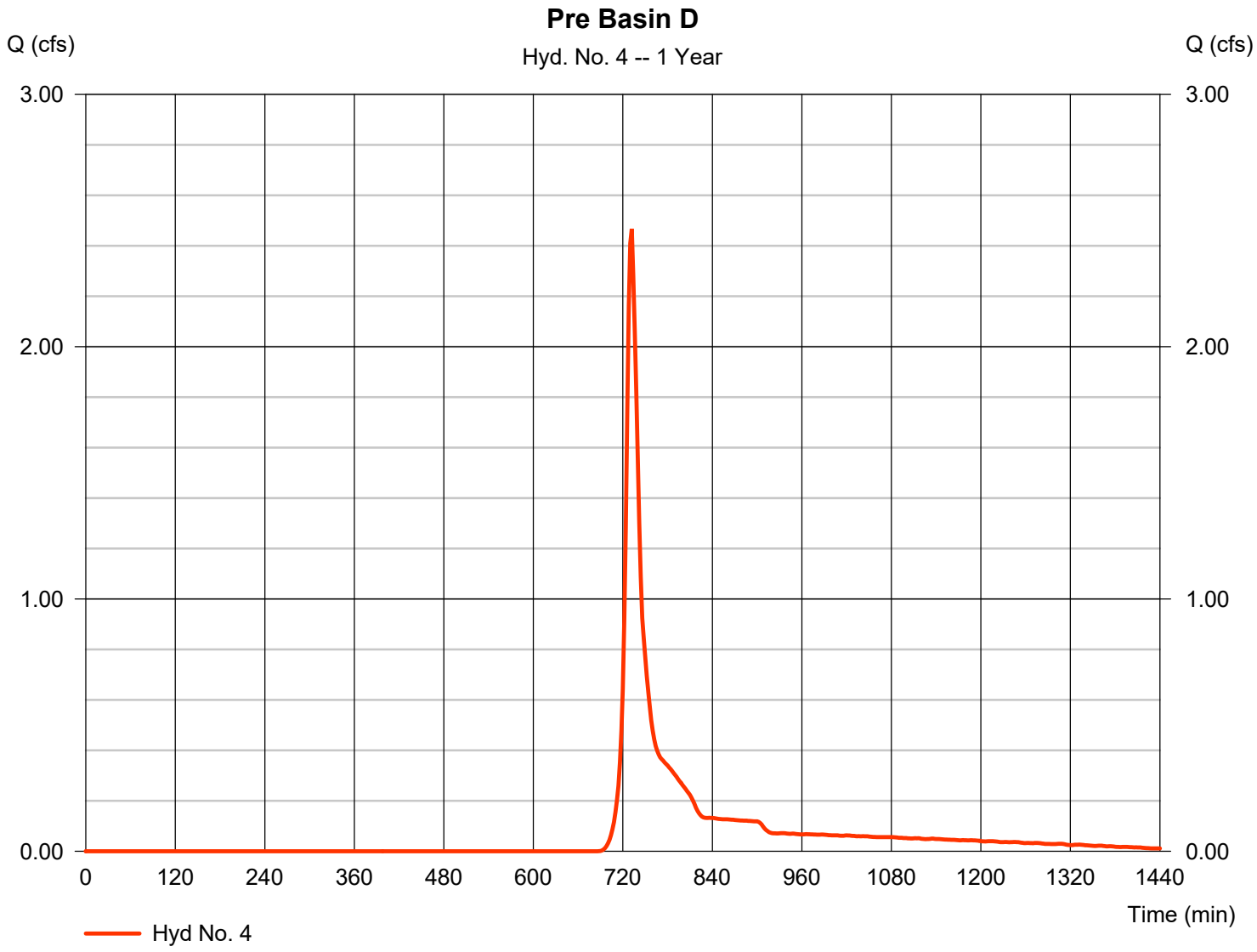
Hydrograph Report

Hyd. No. 4

Pre Basin D

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.467 cfs
Storm frequency	=	1 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	6,603 cuft
Drainage area	=	2.480 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	13.30 min
Total precip.	=	2.38 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape Cn	=	484

* Composite (Area/CN) = [(2.480 x 78)] / 2.480



TR55 Tc Worksheet

Hyd. No. 4

Pre Basin D

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.170		0.011		0.011		
Flow length (ft)	= 100.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.69		0.00		0.00		
Land slope (%)	= 1.55		0.00		0.00		
Travel Time (min)	**= 13.08**	**+**	**0.00**	**+**	**0.00**	**=**	**13.08**
Shallow Concentrated Flow							
Flow length (ft)	= 24.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.28		0.00		0.00		
Travel Time (min)	**= 0.18**	**+**	**0.00**	**+**	**0.00**	**=**	**0.18**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

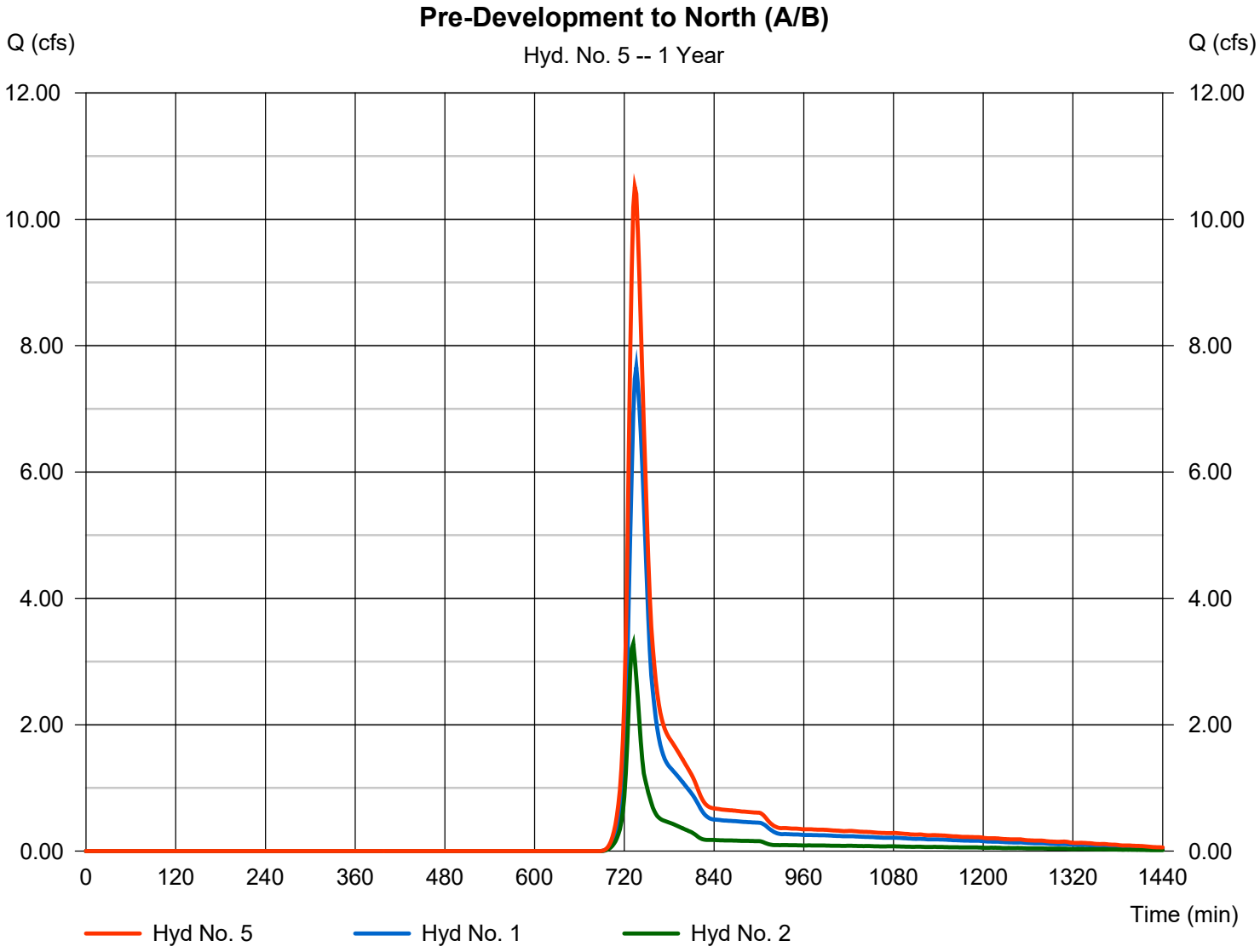
Total Travel Time, Tc ..... 13.30 min

Hydrograph Report

Hyd. No. 5

Pre-Development to North (A/B)

Hydrograph type	= Combine	Peak discharge	= 10.51 cfs
Storm frequency	= 1 yrs	Time to peak	= 734 min
Time interval	= 2 min	Hyd. volume	= 33,673 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 12.940 ac

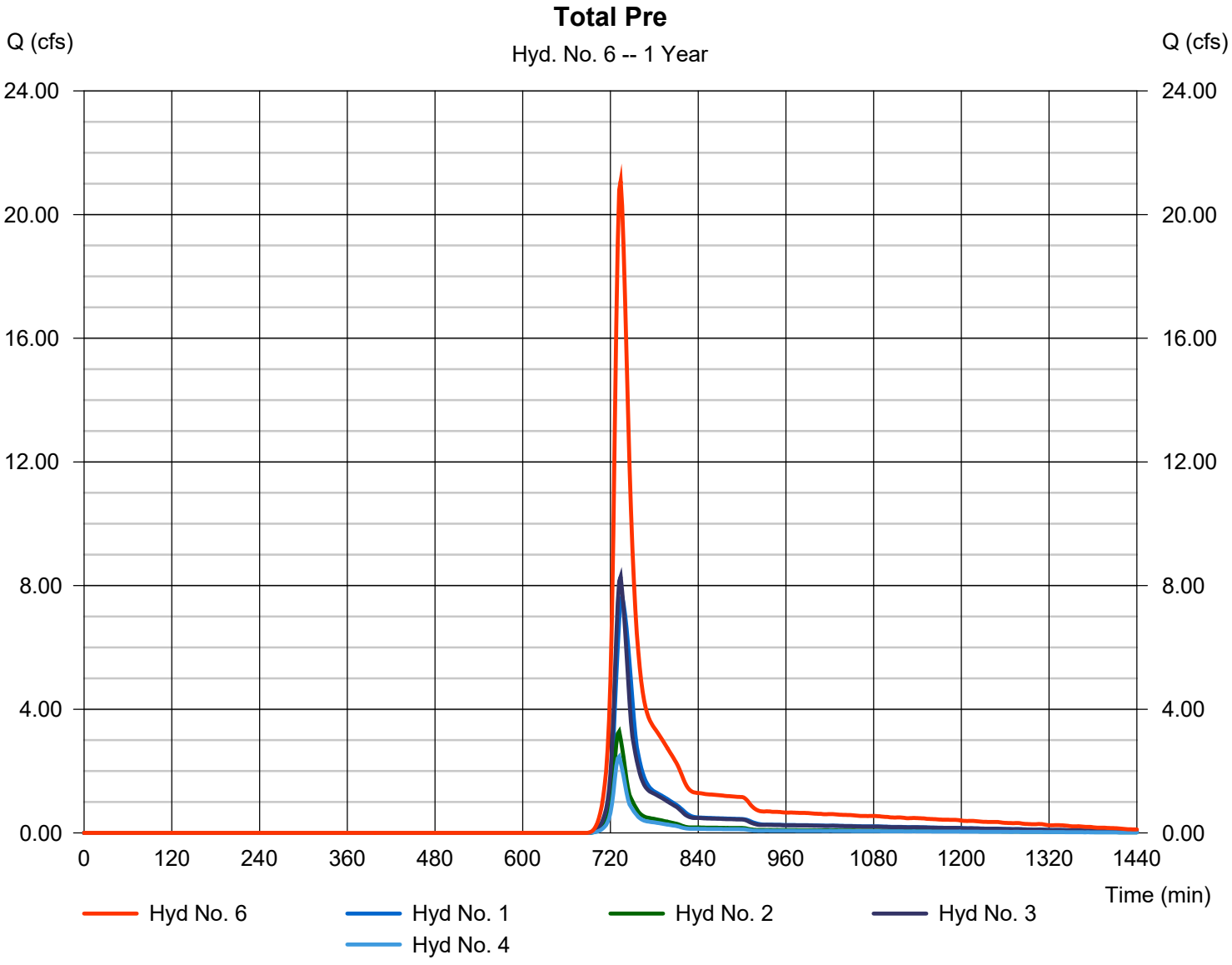


Hydrograph Report

Hyd. No. 6

Total Pre

Hydrograph type	= Combine	Peak discharge	= 21.08 cfs
Storm frequency	= 1 yrs	Time to peak	= 734 min
Time interval	= 2 min	Hyd. volume	= 64,390 cuft
Inflow hyds.	= 1, 2, 3, 4	Contrib. drain. area	= 25.000 ac



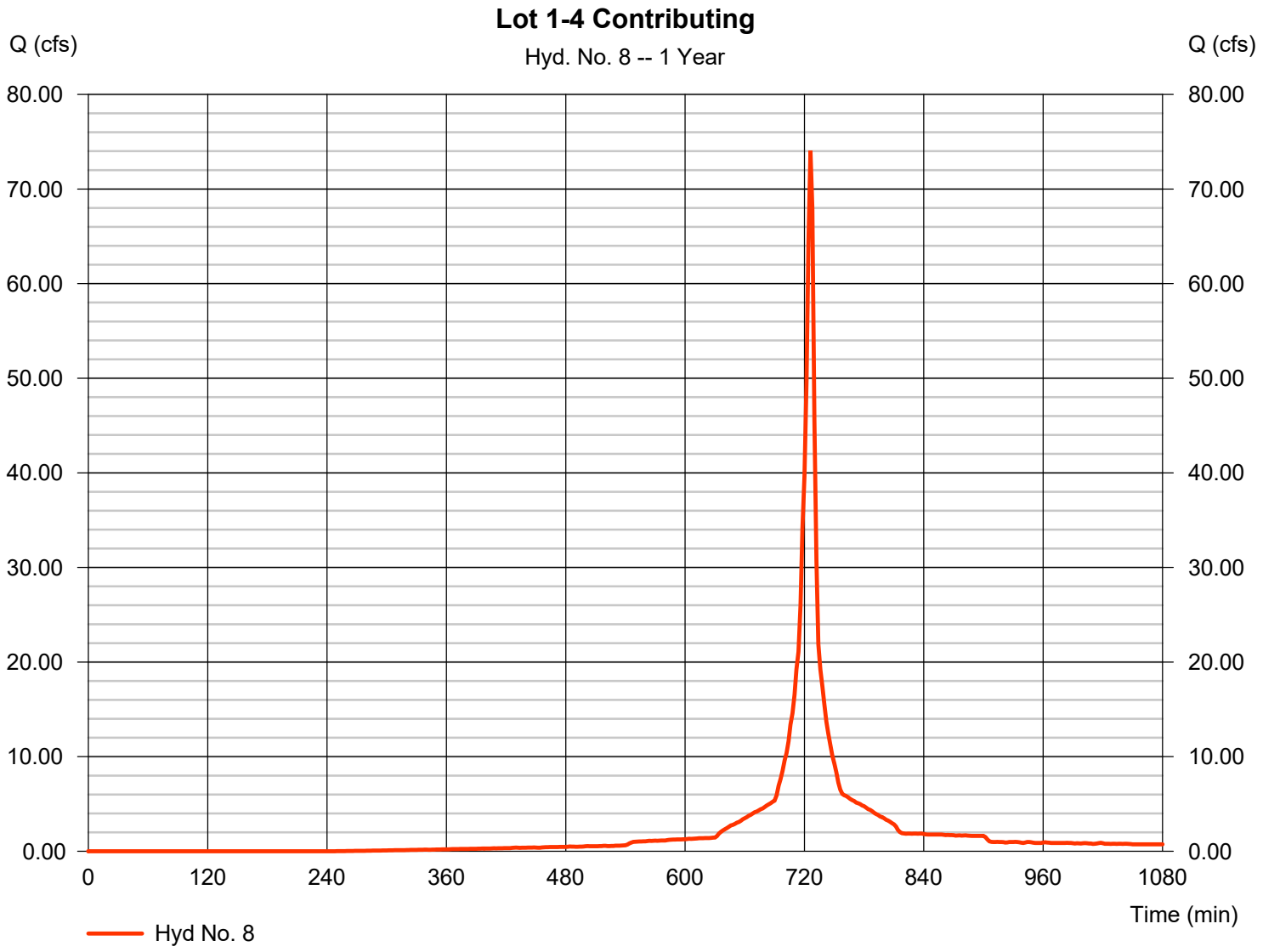
Hydrograph Report

Hyd. No. 8

Lot 1-4 Contributing

Hydrograph type	=	SCS Runoff	Peak discharge	=	74.06 cfs
Storm frequency	=	1 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	154,519 cuft
Drainage area	=	22.200 ac	Curve number	=	97*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	2.38 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(21.250 x 98) + (0.950 x 74)] / 22.200



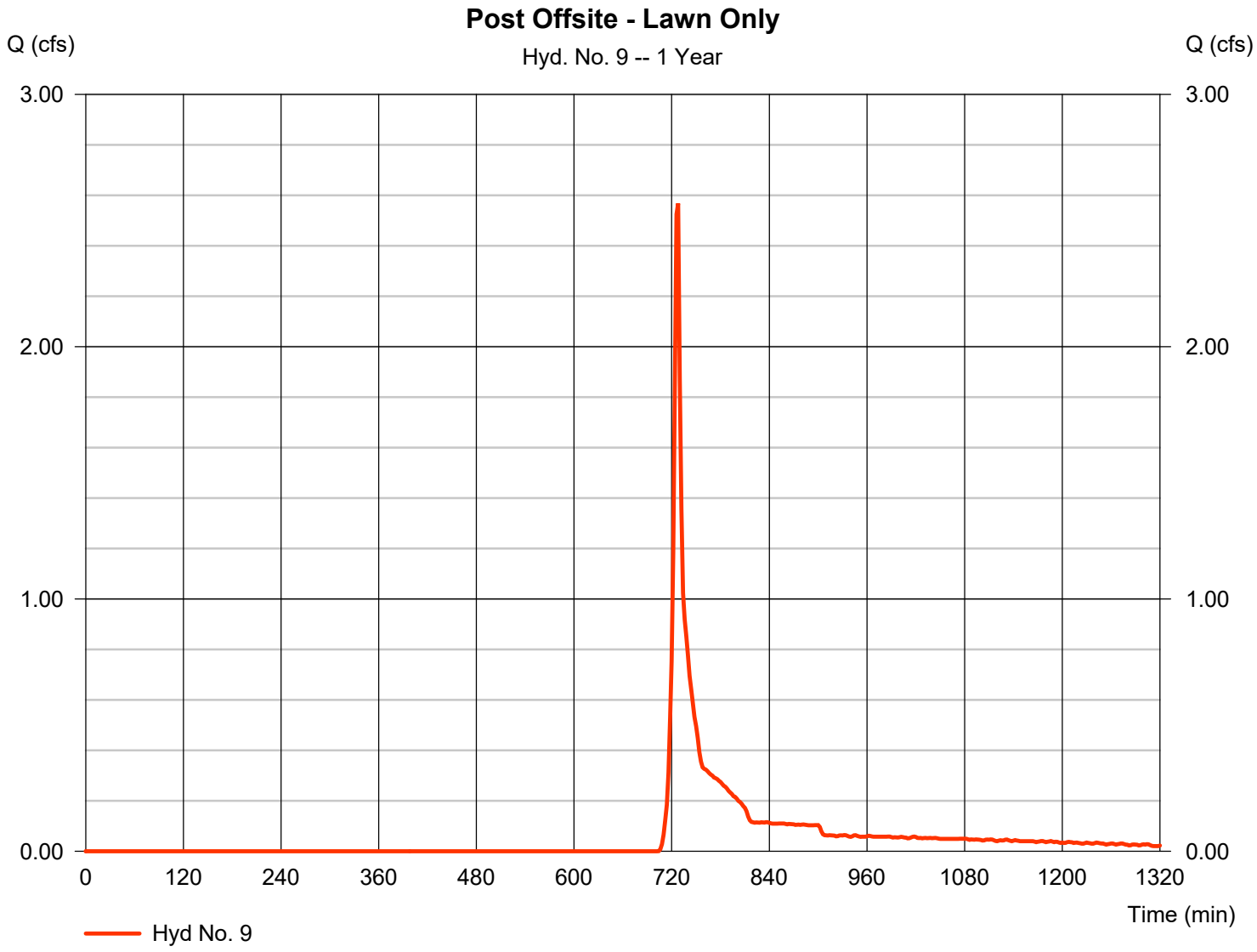
Hydrograph Report

Hyd. No. 9

Post Offsite - Lawn Only

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.567 cfs
Storm frequency	=	1 yrs	Time to peak	=	728 min
Time interval	=	2 min	Hyd. volume	=	5,201 cuft
Drainage area	=	2.820 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	2.38 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (2.820 x 74)] / 2.820



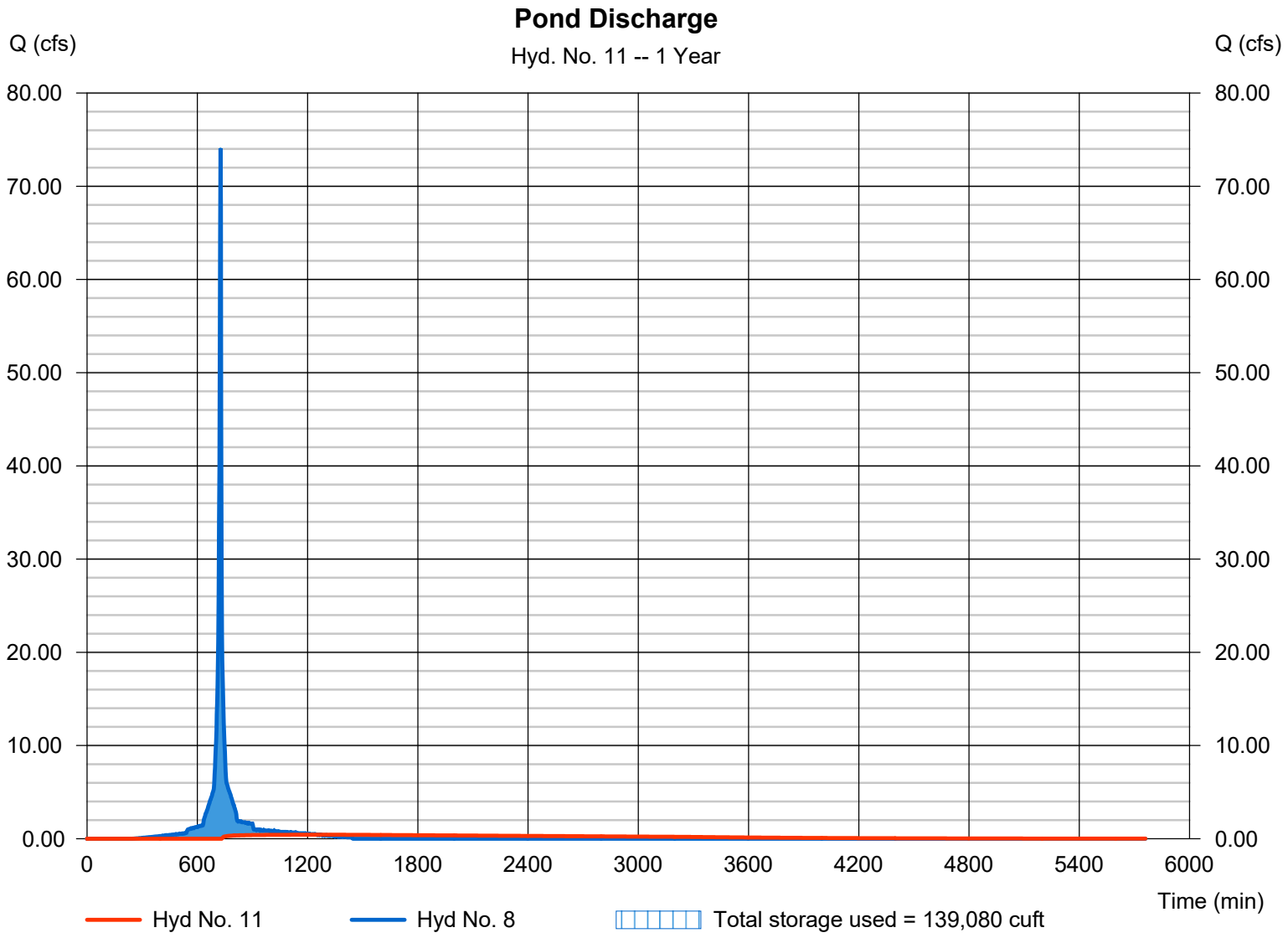
Hydrograph Report

Hyd. No. 11

Pond Discharge

Hydrograph type	=	Reservoir	Peak discharge	=	0.430 cfs
Storm frequency	=	1 yrs	Time to peak	=	1250 min
Time interval	=	2 min	Hyd. volume	=	60,445 cuft
Inflow hyd. No.	=	8 - Lot 1-4 Contributing	Max. Elevation	=	719.45 ft
Reservoir name	=	Regional Pond	Max. Storage	=	139,080 cuft

Storage Indication method used.



Pond Report

Pond No. 1 - Regional Pond

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 718.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	718.00	89,941	0	0
1.00	719.00	97,290	93,582	93,582
2.00	720.00	104,740	100,982	194,564
3.00	721.00	112,290	108,482	303,046
4.00	722.00	119,941	116,083	419,129
4.50	722.50	129,646	62,375	481,504

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 15.00	5.00	0.00	0.00
Span (in)	= 15.00	5.00	0.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 718.00	718.00	0.00	0.00
Length (ft)	= 375.00	0.00	0.00	0.00
Slope (%)	= 0.31	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

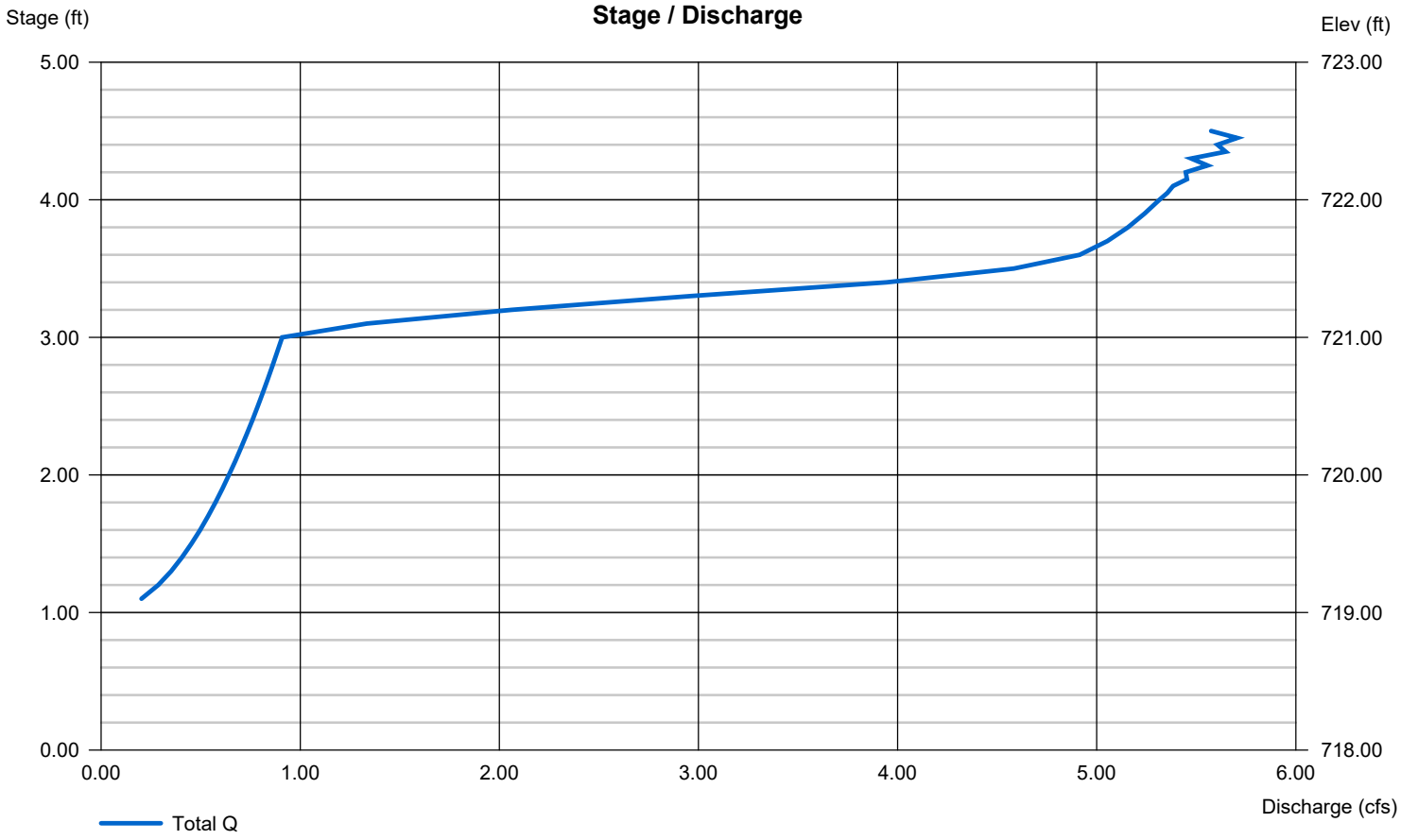
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	20.00	Inactive	0.00
Crest El. (ft)	= 721.00	721.50	0.00	0.00
Weir Coeff.	= 3.33	2.60	2.60	3.33
Weir Type	= Rect	Broad	Broad	---
Multi-Stage	= Yes	Yes	Yes	No

Exfil.(in/hr) = 0.000 (by Contour)

TW Elev. (ft) = 719.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

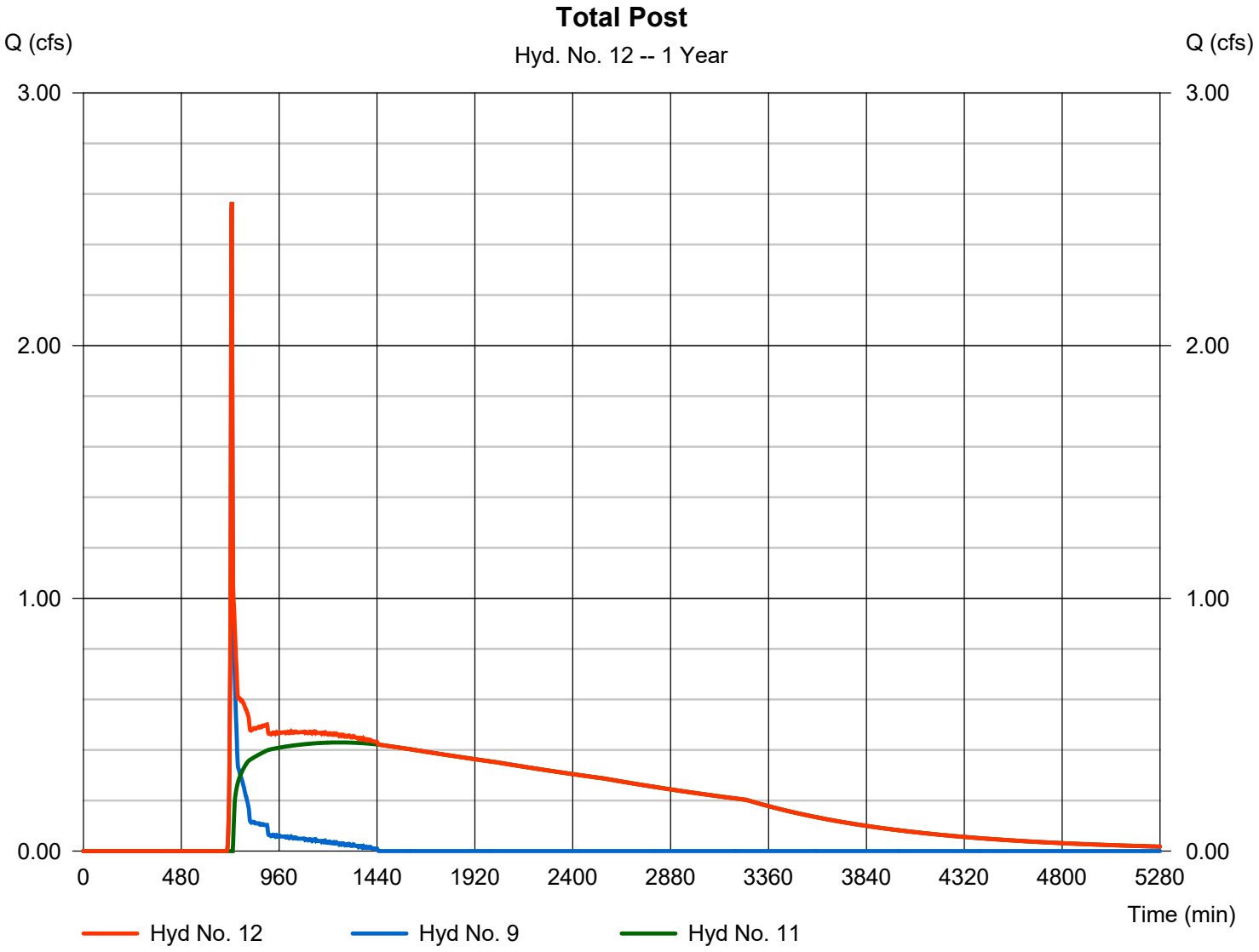


Hydrograph Report

Hyd. No. 12

Total Post

Hydrograph type	= Combine	Peak discharge	= 2.567 cfs
Storm frequency	= 1 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 65,646 cuft
Inflow hyds.	= 9, 11	Contrib. drain. area	= 2.820 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	10.05	2	736	31,973	------	------	------	Pre Basin A
2	SCS Runoff	4.288	2	732	11,287	------	------	------	Pre Basin B
3	SCS Runoff	10.84	2	734	30,979	------	------	------	Pre Basin C
4	SCS Runoff	3.222	2	732	8,482	------	------	------	Pre Basin D
5	Combine	13.82	2	734	43,260	1, 2,	------	------	Pre-Development to North (A/B)
6	Combine	27.62	2	734	82,721	1, 2, 3, 4,	------	------	Total Pre
8	SCS Runoff	84.39	2	726	177,649	------	------	------	Lot 1-4 Contributing
9	SCS Runoff	3.481	2	726	6,890	------	------	------	Post Offsite - Lawn Only
11	Reservoir	0.516	2	1246	82,938	8	719.65	158,869	Pond Discharge
12	Combine	3.481	2	726	89,828	9, 11	------	------	Total Post

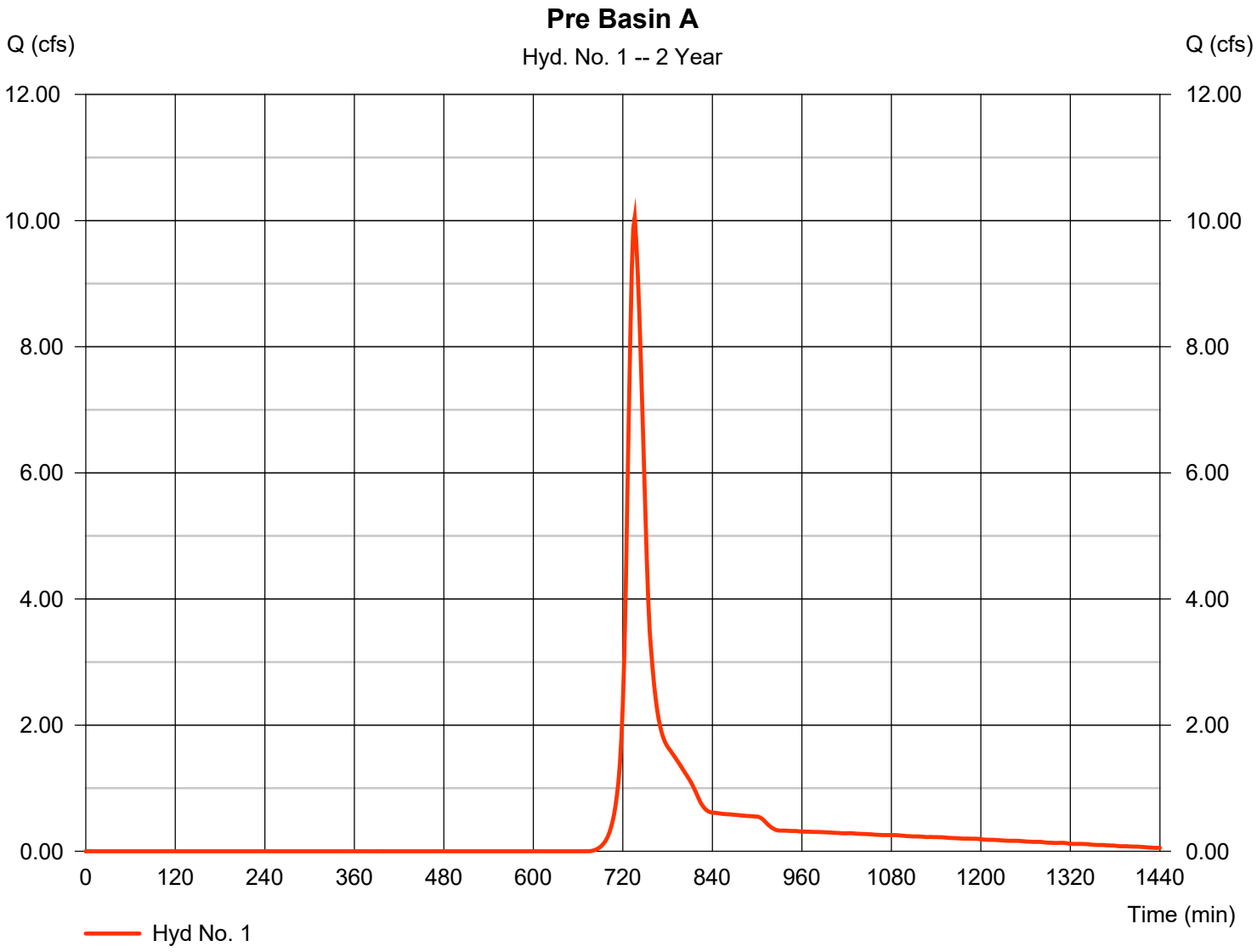
Hydrograph Report

Hyd. No. 1

Pre Basin A

Hydrograph type	=	SCS Runoff	Peak discharge	=	10.05 cfs
Storm frequency	=	2 yrs	Time to peak	=	736 min
Time interval	=	2 min	Hyd. volume	=	31,973 cuft
Drainage area	=	9.640 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	18.70 min
Total precip.	=	2.69 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.640 x 78)] / 9.640



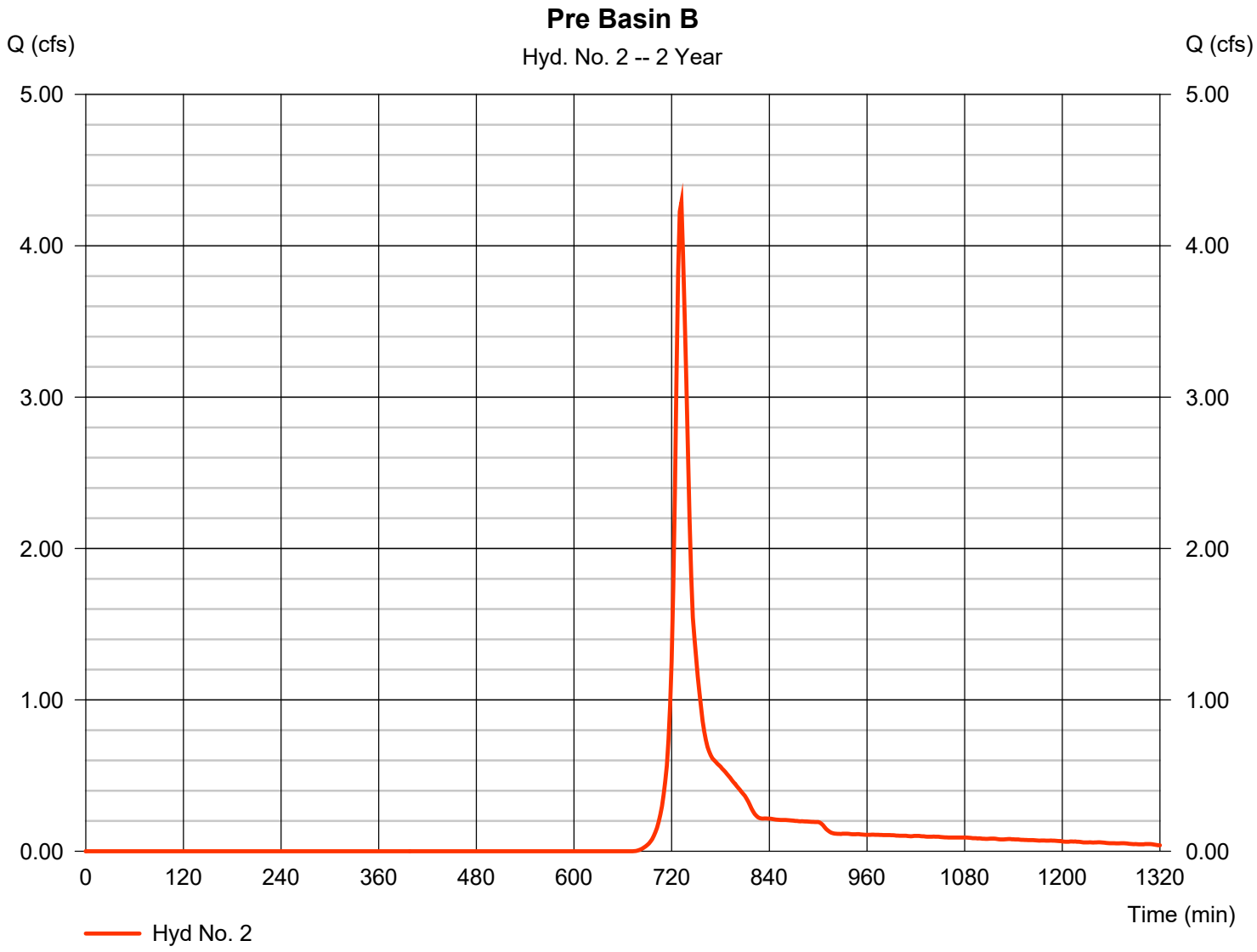
Hydrograph Report

Hyd. No. 2

Pre Basin B

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.288 cfs
Storm frequency	=	2 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	11,287 cuft
Drainage area	=	3.300 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	12.10 min
Total precip.	=	2.69 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(3.300 x 78)] / 3.300



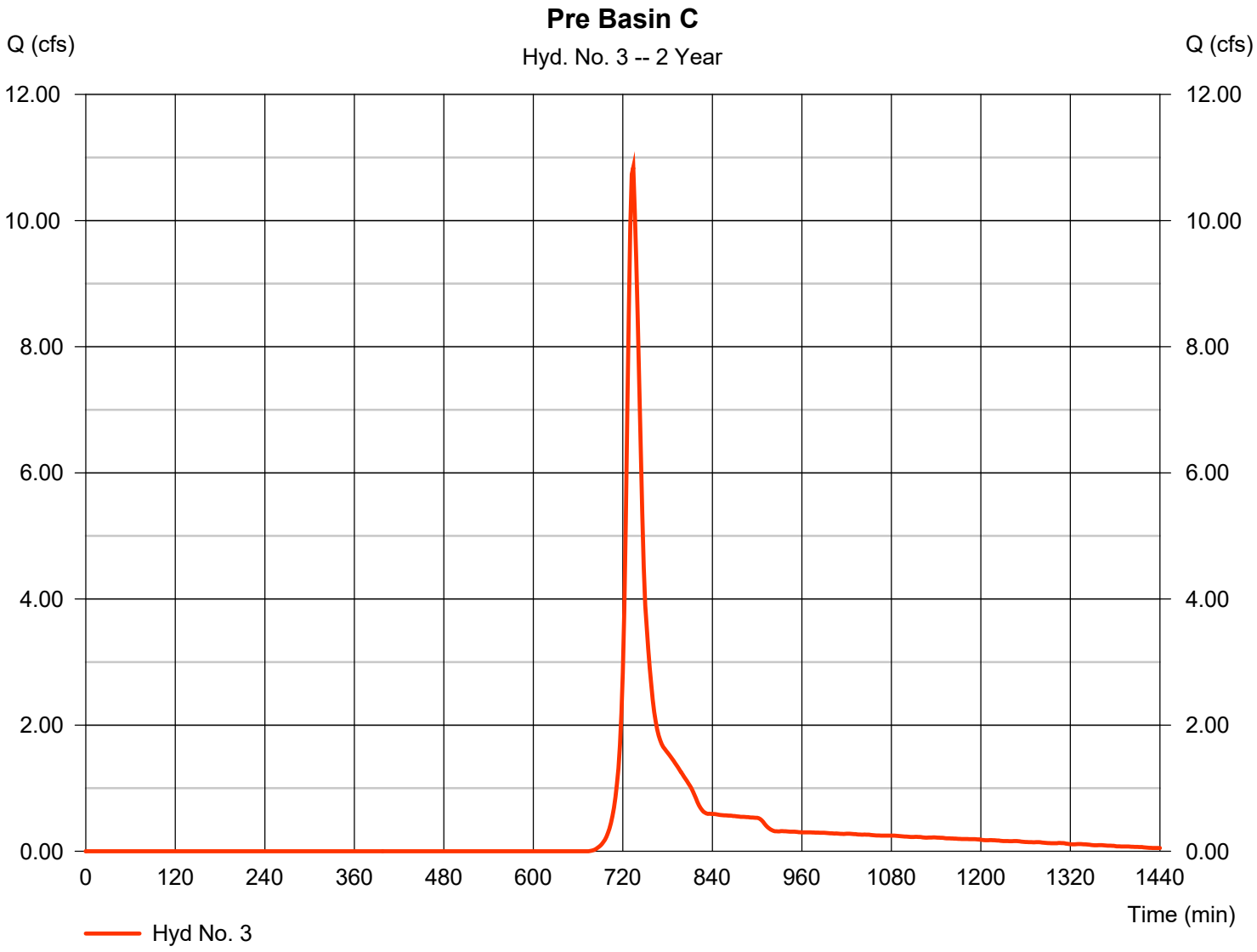
Hydrograph Report

Hyd. No. 3

Pre Basin C

Hydrograph type	=	SCS Runoff	Peak discharge	=	10.84 cfs
Storm frequency	=	2 yrs	Time to peak	=	734 min
Time interval	=	2 min	Hyd. volume	=	30,979 cuft
Drainage area	=	9.580 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	15.10 min
Total precip.	=	2.69 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.580 x 78)] / 9.580



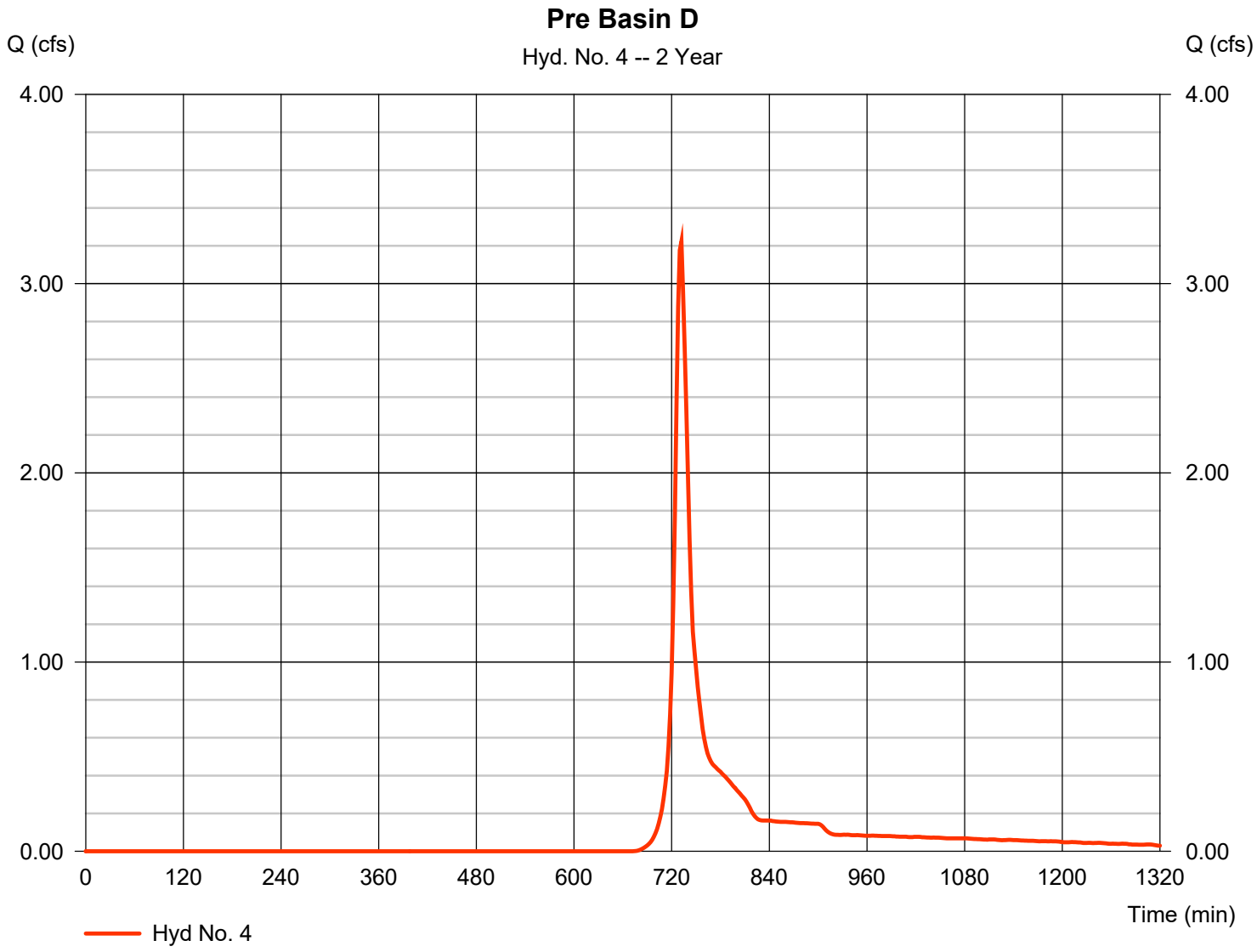
Hydrograph Report

Hyd. No. 4

Pre Basin D

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.222 cfs
Storm frequency	=	2 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	8,482 cuft
Drainage area	=	2.480 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	13.30 min
Total precip.	=	2.69 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(2.480 x 78)] / 2.480

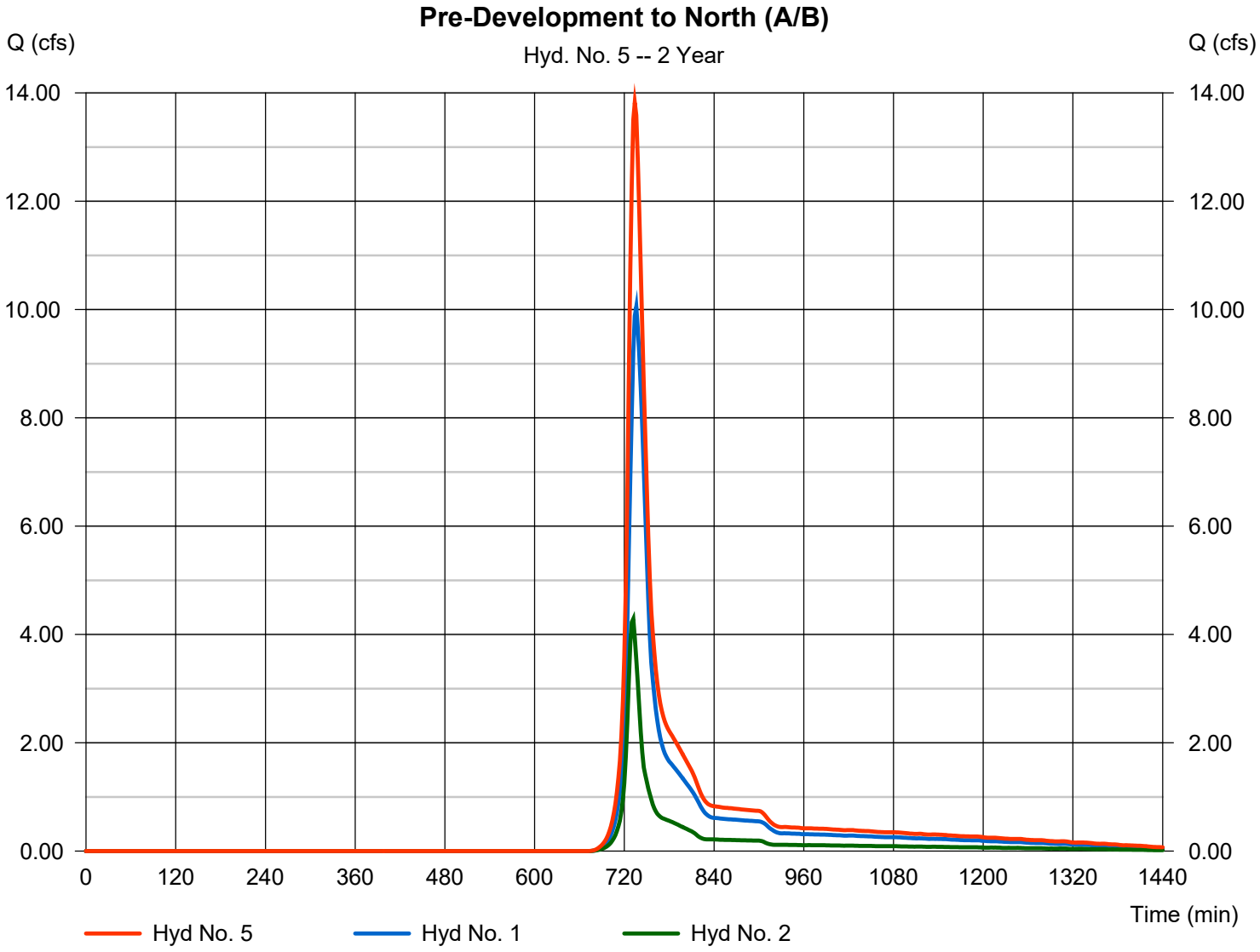


Hydrograph Report

Hyd. No. 5

Pre-Development to North (A/B)

Hydrograph type	= Combine	Peak discharge	= 13.82 cfs
Storm frequency	= 2 yrs	Time to peak	= 734 min
Time interval	= 2 min	Hyd. volume	= 43,260 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 12.940 ac

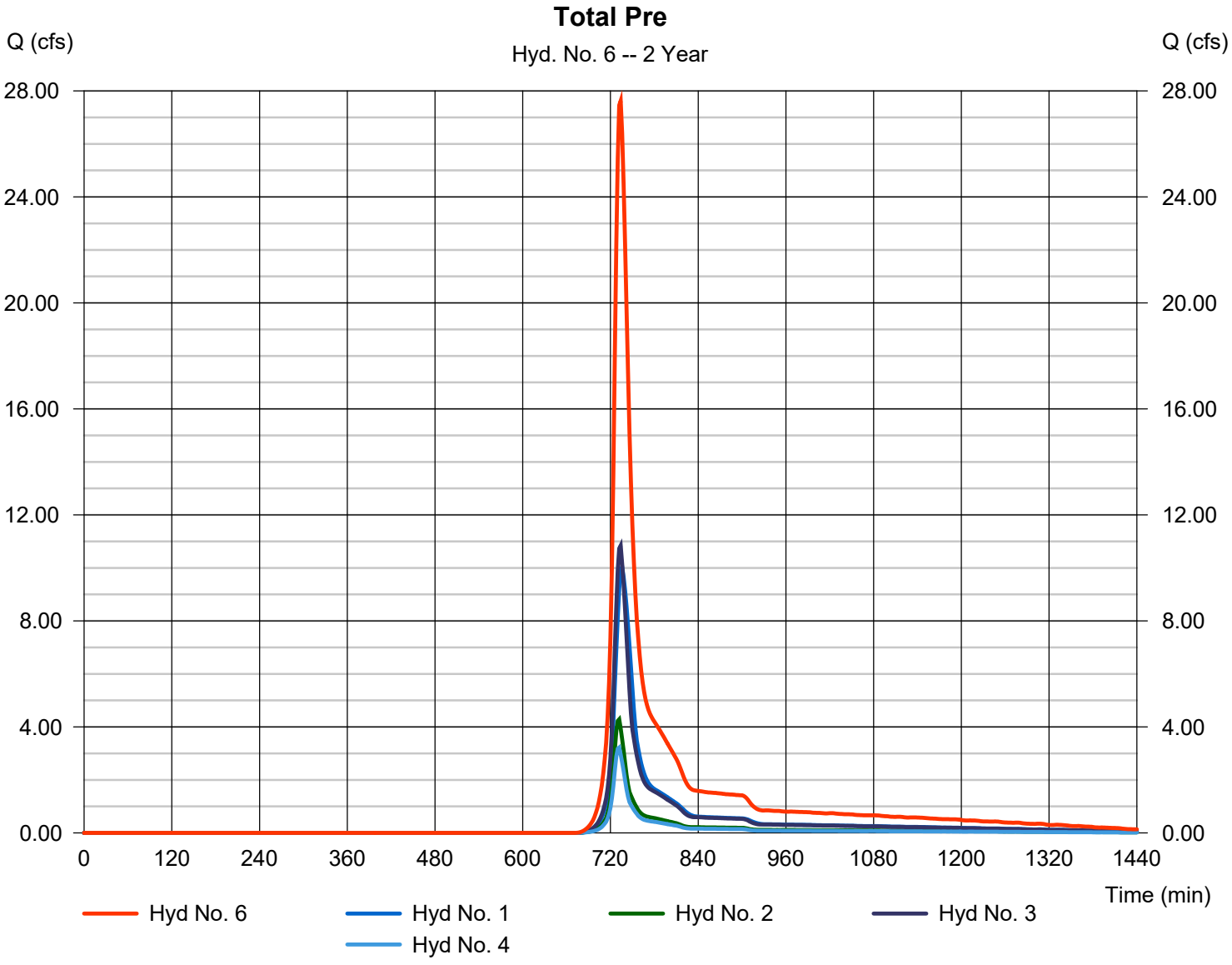


Hydrograph Report

Hyd. No. 6

Total Pre

Hydrograph type	= Combine	Peak discharge	= 27.62 cfs
Storm frequency	= 2 yrs	Time to peak	= 734 min
Time interval	= 2 min	Hyd. volume	= 82,721 cuft
Inflow hyds.	= 1, 2, 3, 4	Contrib. drain. area	= 25.000 ac



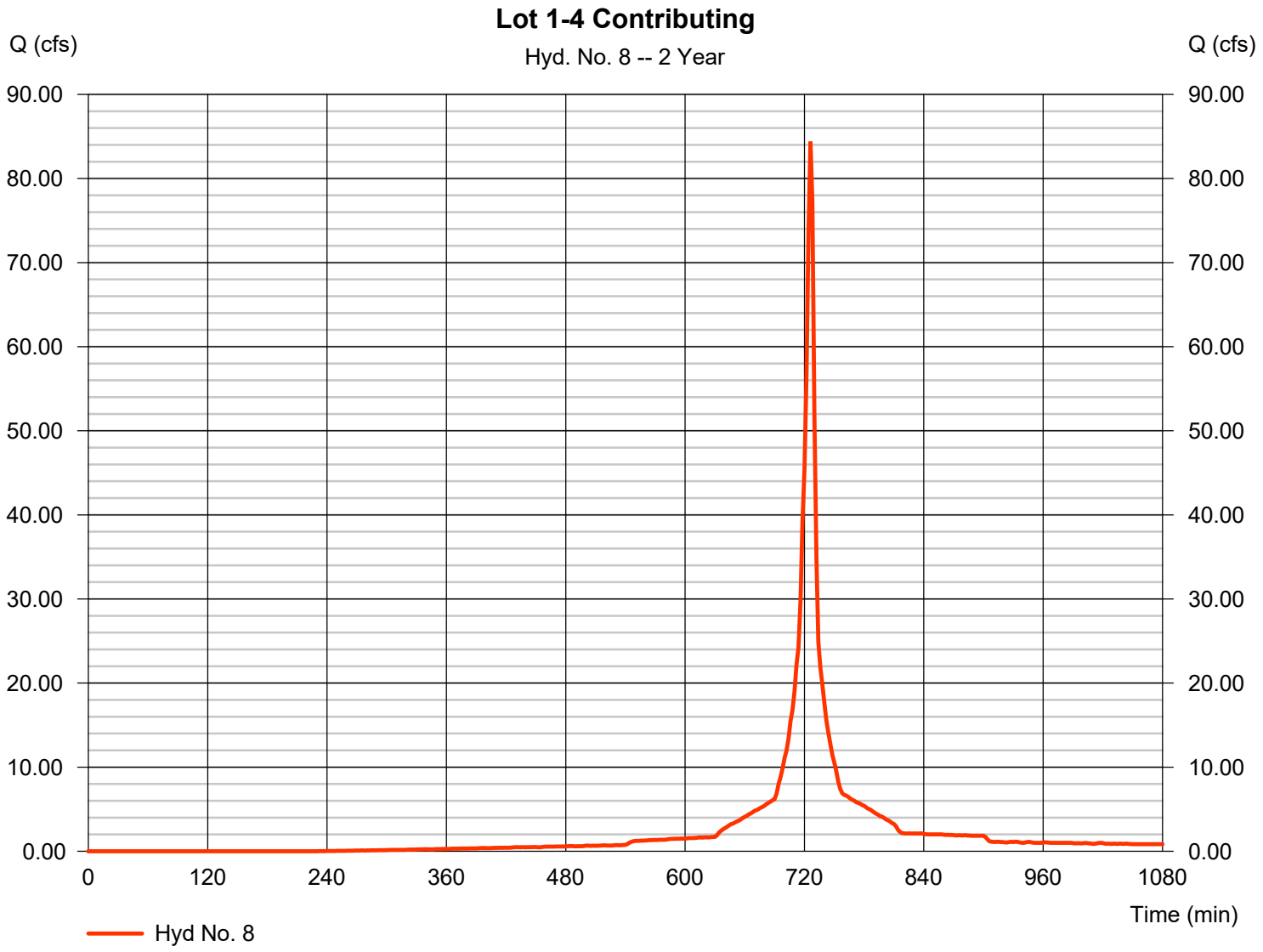
Hydrograph Report

Hyd. No. 8

Lot 1-4 Contributing

Hydrograph type	=	SCS Runoff	Peak discharge	=	84.39 cfs
Storm frequency	=	2 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	177,649 cuft
Drainage area	=	22.200 ac	Curve number	=	97*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	2.69 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(21.250 x 98) + (0.950 x 74)] / 22.200



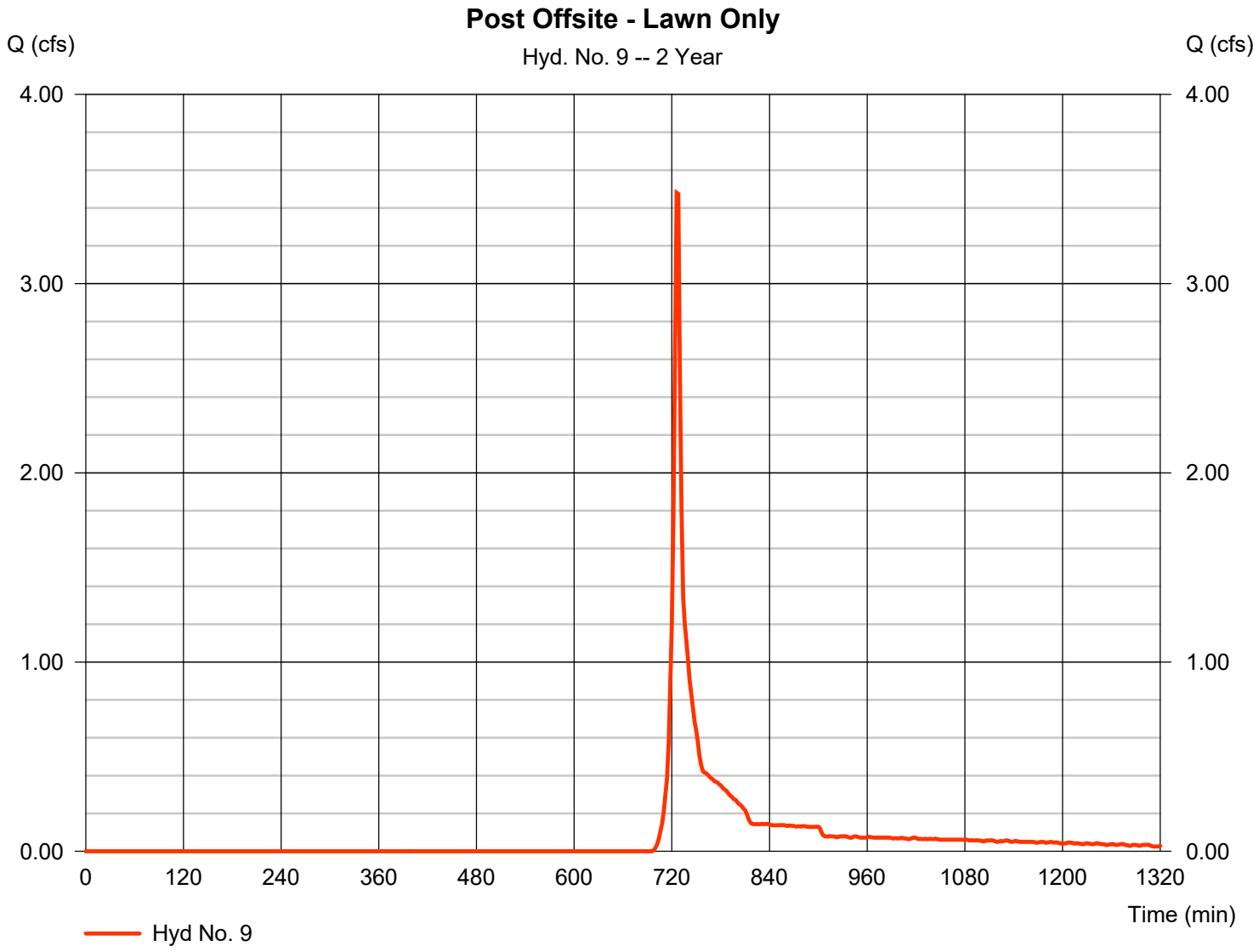
Hydrograph Report

Hyd. No. 9

Post Offsite - Lawn Only

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.481 cfs
Storm frequency	=	2 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	6,890 cuft
Drainage area	=	2.820 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	2.69 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gateway Cir - Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (2.820 x 74)] / 2.820



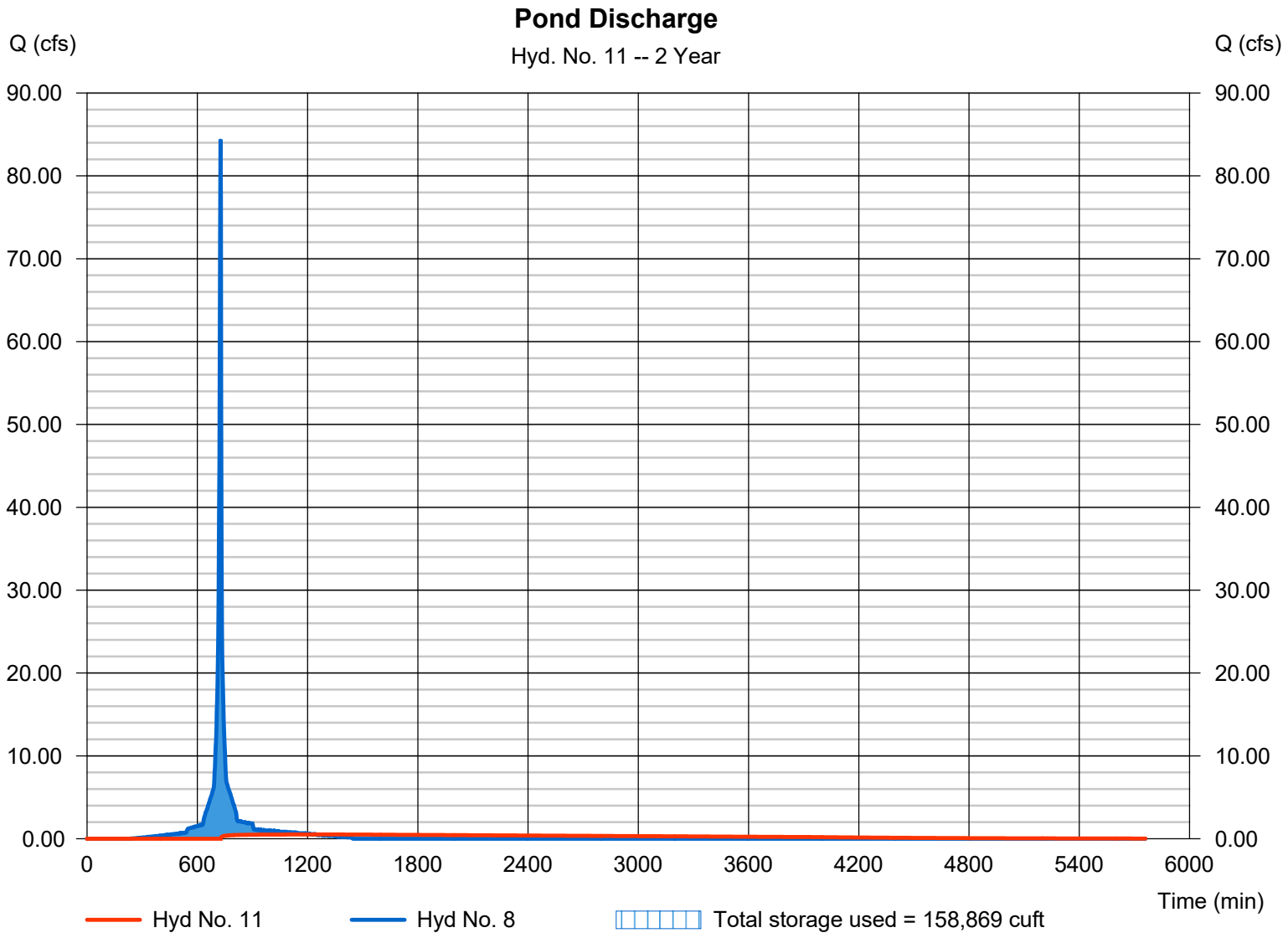
Hydrograph Report

Hyd. No. 11

Pond Discharge

Hydrograph type	=	Reservoir	Peak discharge	=	0.516 cfs
Storm frequency	=	2 yrs	Time to peak	=	1246 min
Time interval	=	2 min	Hyd. volume	=	82,938 cuft
Inflow hyd. No.	=	8 - Lot 1-4 Contributing	Max. Elevation	=	719.65 ft
Reservoir name	=	Regional Pond	Max. Storage	=	158,869 cuft

Storage Indication method used.

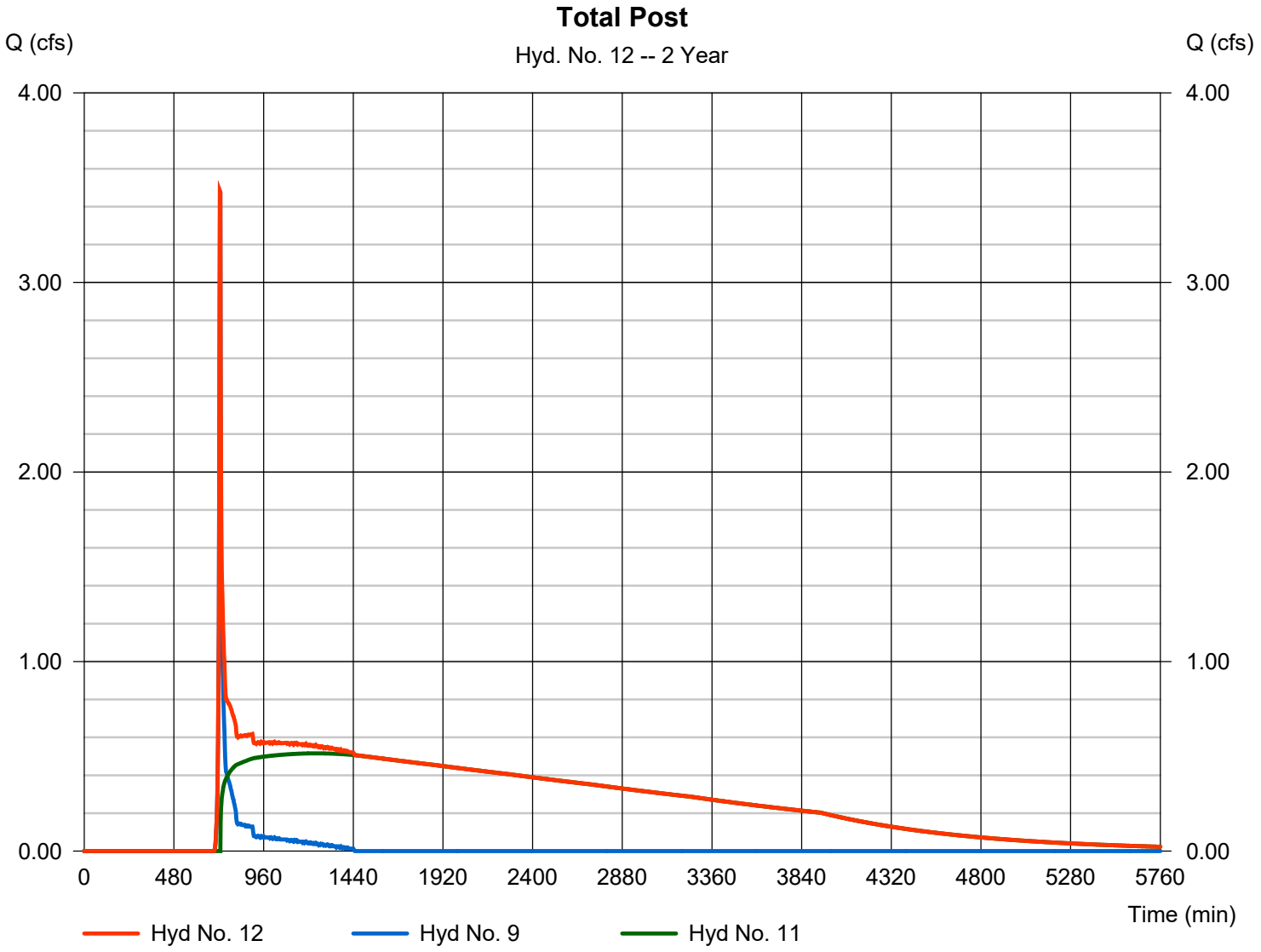


Hydrograph Report

Hyd. No. 12

Total Post

Hydrograph type	=	Combine	Peak discharge	=	3.481 cfs
Storm frequency	=	2 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	89,828 cuft
Inflow hyds.	=	9, 11	Contrib. drain. area	=	2.820 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	19.14	2	736	59,406	------	------	------	Pre Basin A
2	SCS Runoff	8.114	2	730	20,972	------	------	------	Pre Basin B
3	SCS Runoff	20.62	2	732	57,561	------	------	------	Pre Basin C
4	SCS Runoff	6.098	2	730	15,761	------	------	------	Pre Basin D
5	Combine	26.42	2	734	80,378	1, 2,	------	------	Pre-Development to North (A/B)
6	Combine	52.89	2	732	153,699	1, 2, 3, 4,	------	------	Total Pre
8	SCS Runoff	119.82	2	726	257,830	------	------	------	Lot 1-4 Contributing
9	SCS Runoff	7.229	2	726	13,652	------	------	------	Post Offsite - Lawn Only
11	Reservoir	0.740	2	1246	153,339	8	720.33	230,214	Pond Discharge
12	Combine	7.588	2	726	166,990	9, 11	------	------	Total Post

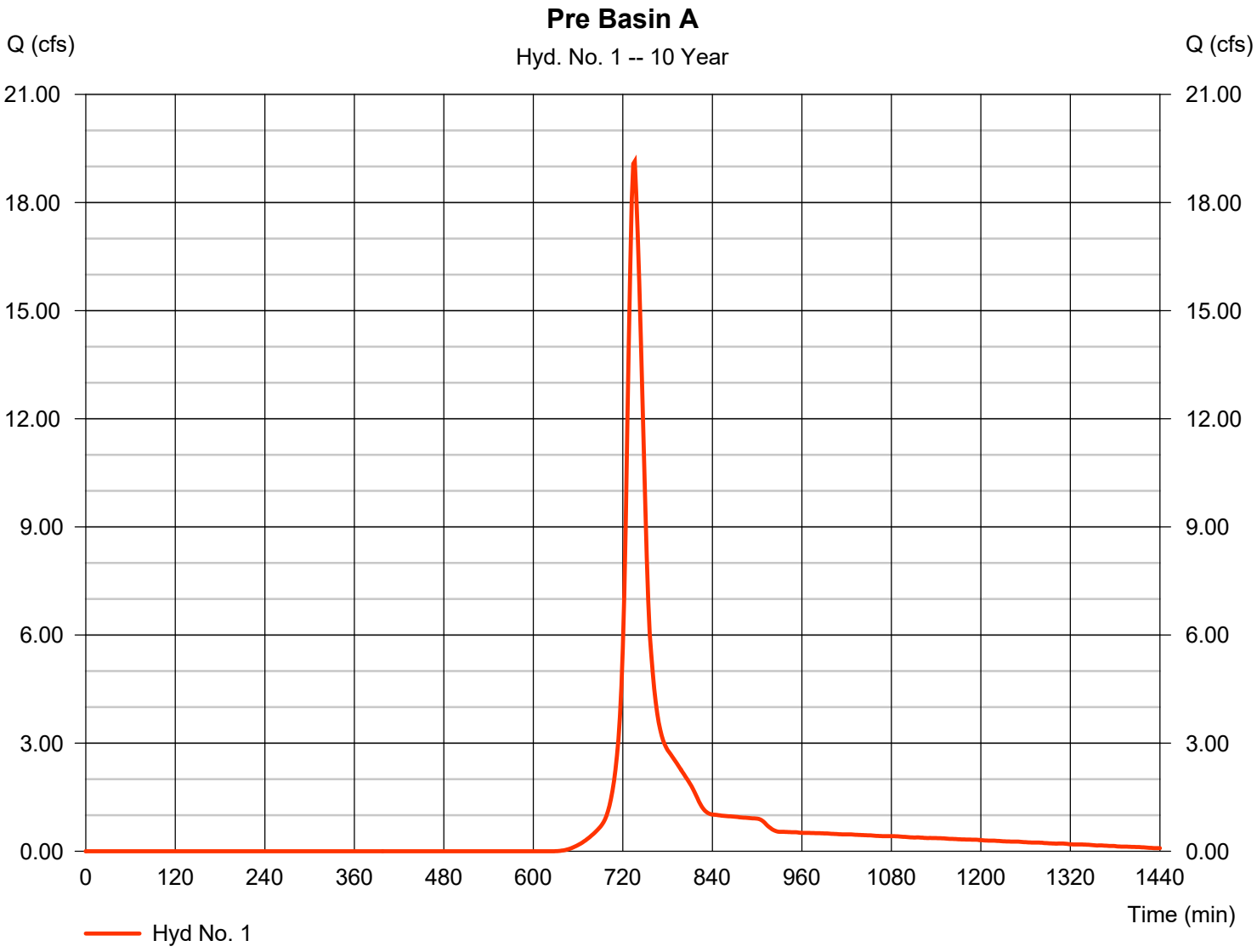
Hydrograph Report

Hyd. No. 1

Pre Basin A

Hydrograph type	=	SCS Runoff	Peak discharge	=	19.14 cfs
Storm frequency	=	10 yrs	Time to peak	=	736 min
Time interval	=	2 min	Hyd. volume	=	59,406 cuft
Drainage area	=	9.640 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	18.70 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Cir - Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.640 x 78)] / 9.640



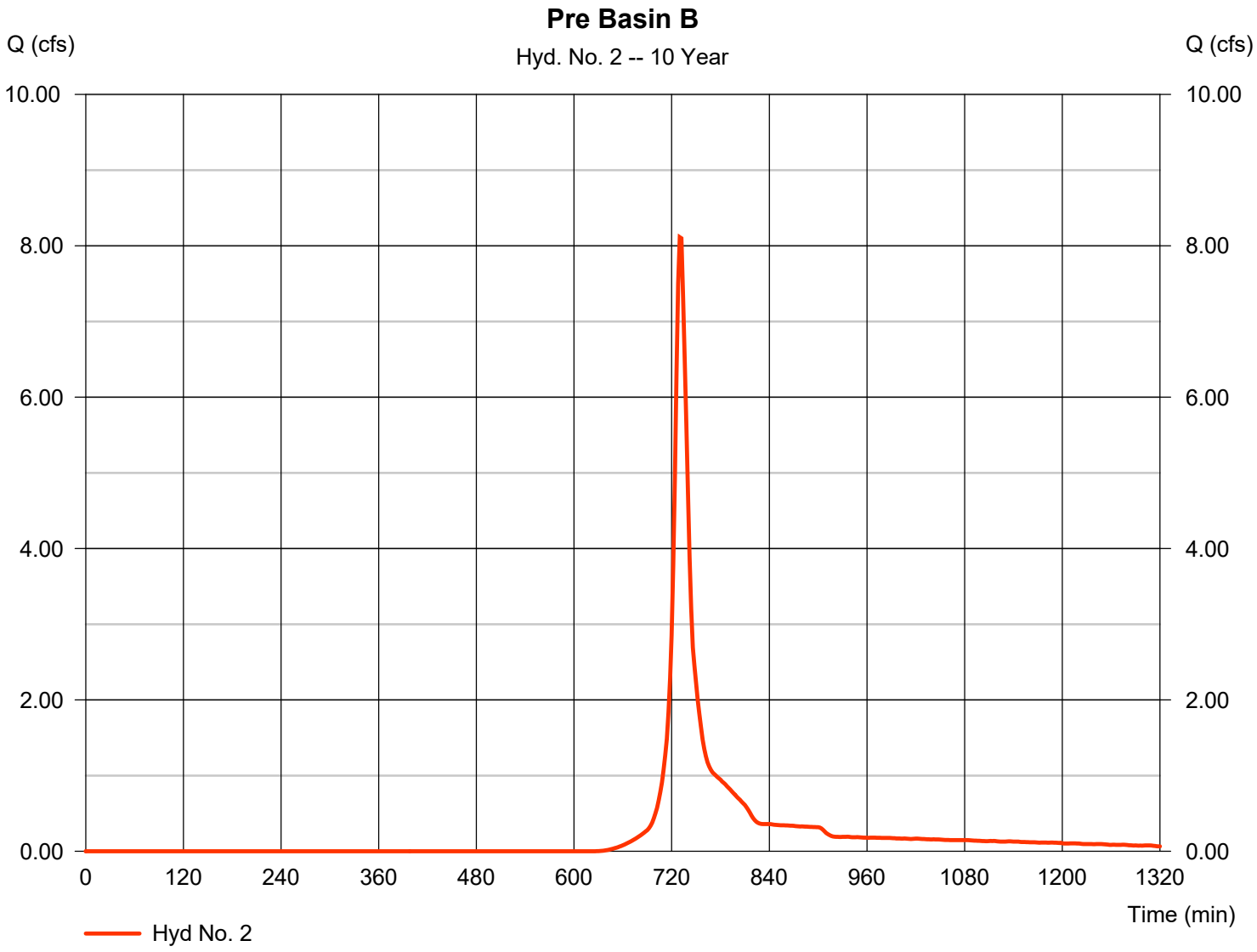
Hydrograph Report

Hyd. No. 2

Pre Basin B

Hydrograph type	=	SCS Runoff	Peak discharge	=	8.114 cfs
Storm frequency	=	10 yrs	Time to peak	=	730 min
Time interval	=	2 min	Hyd. volume	=	20,972 cuft
Drainage area	=	3.300 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	12.10 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape Cn	=	484

* Composite (Area/CN) = [(3.300 x 78)] / 3.300



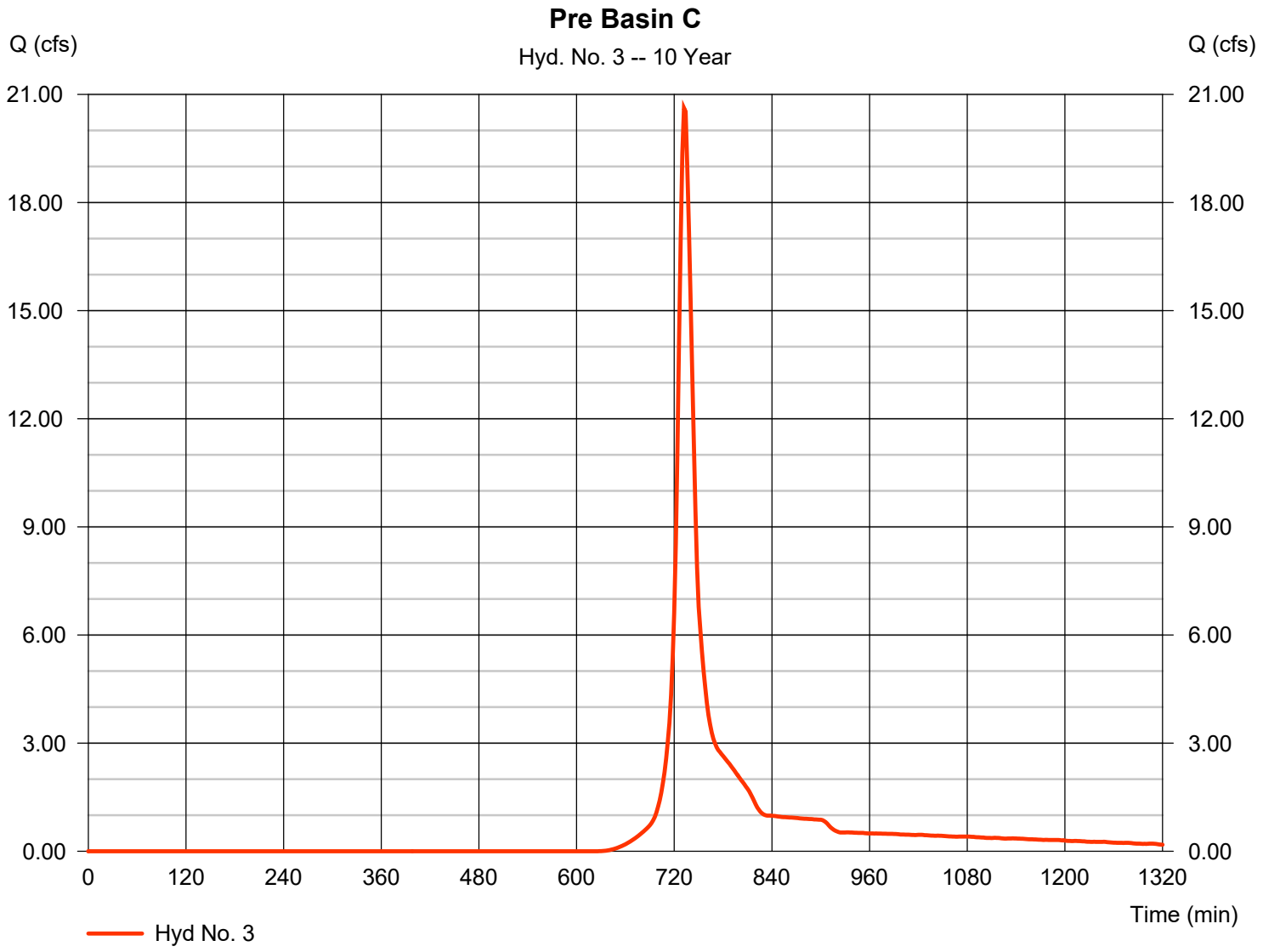
Hydrograph Report

Hyd. No. 3

Pre Basin C

Hydrograph type	=	SCS Runoff	Peak discharge	=	20.62 cfs
Storm frequency	=	10 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	57,561 cuft
Drainage area	=	9.580 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	15.10 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape Cn	=	484

* Composite (Area/CN) = [(9.580 x 78)] / 9.580



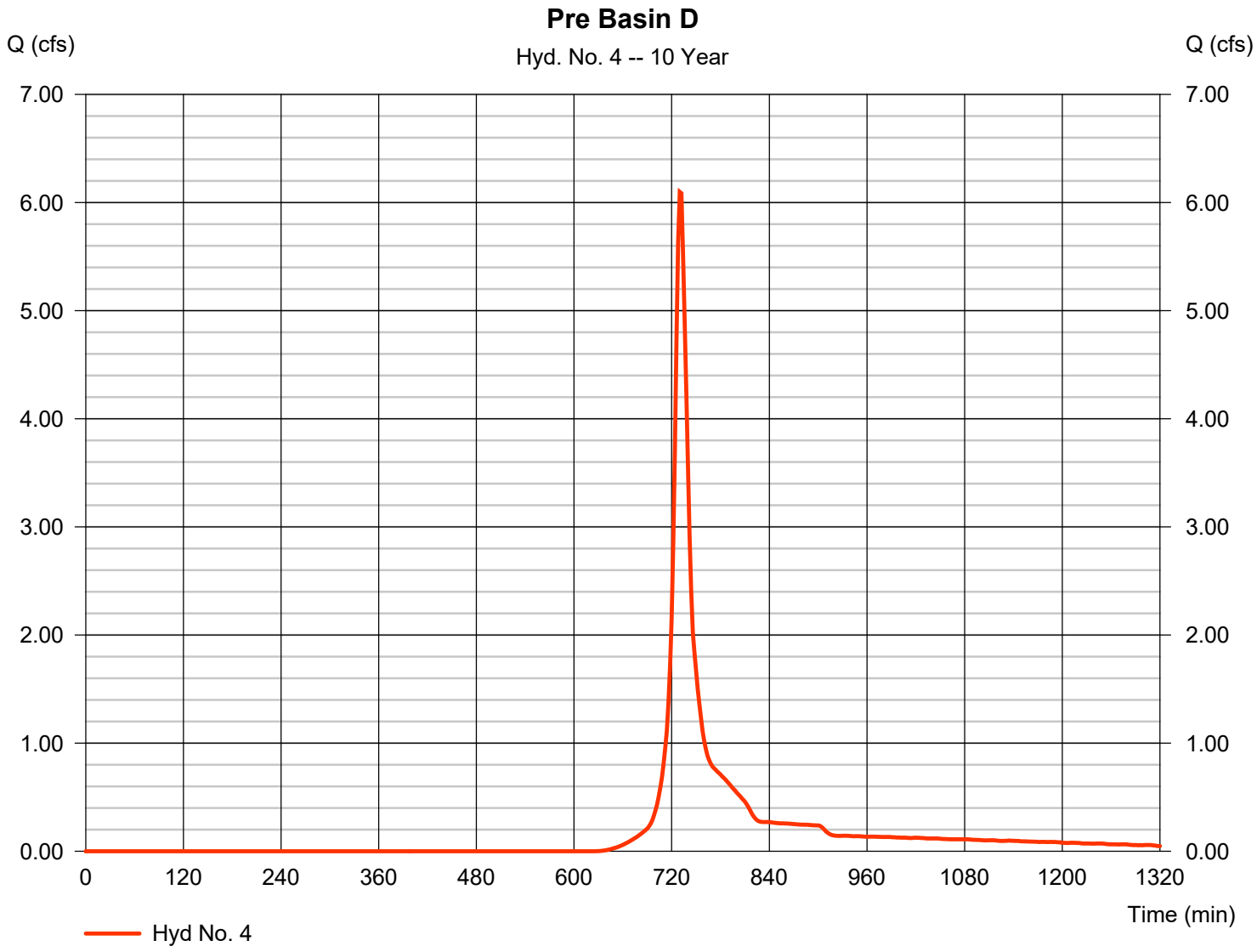
Hydrograph Report

Hyd. No. 4

Pre Basin D

Hydrograph type	=	SCS Runoff	Peak discharge	=	6.098 cfs
Storm frequency	=	10 yrs	Time to peak	=	730 min
Time interval	=	2 min	Hyd. volume	=	15,761 cuft
Drainage area	=	2.480 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	13.30 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(2.480 x 78)] / 2.480

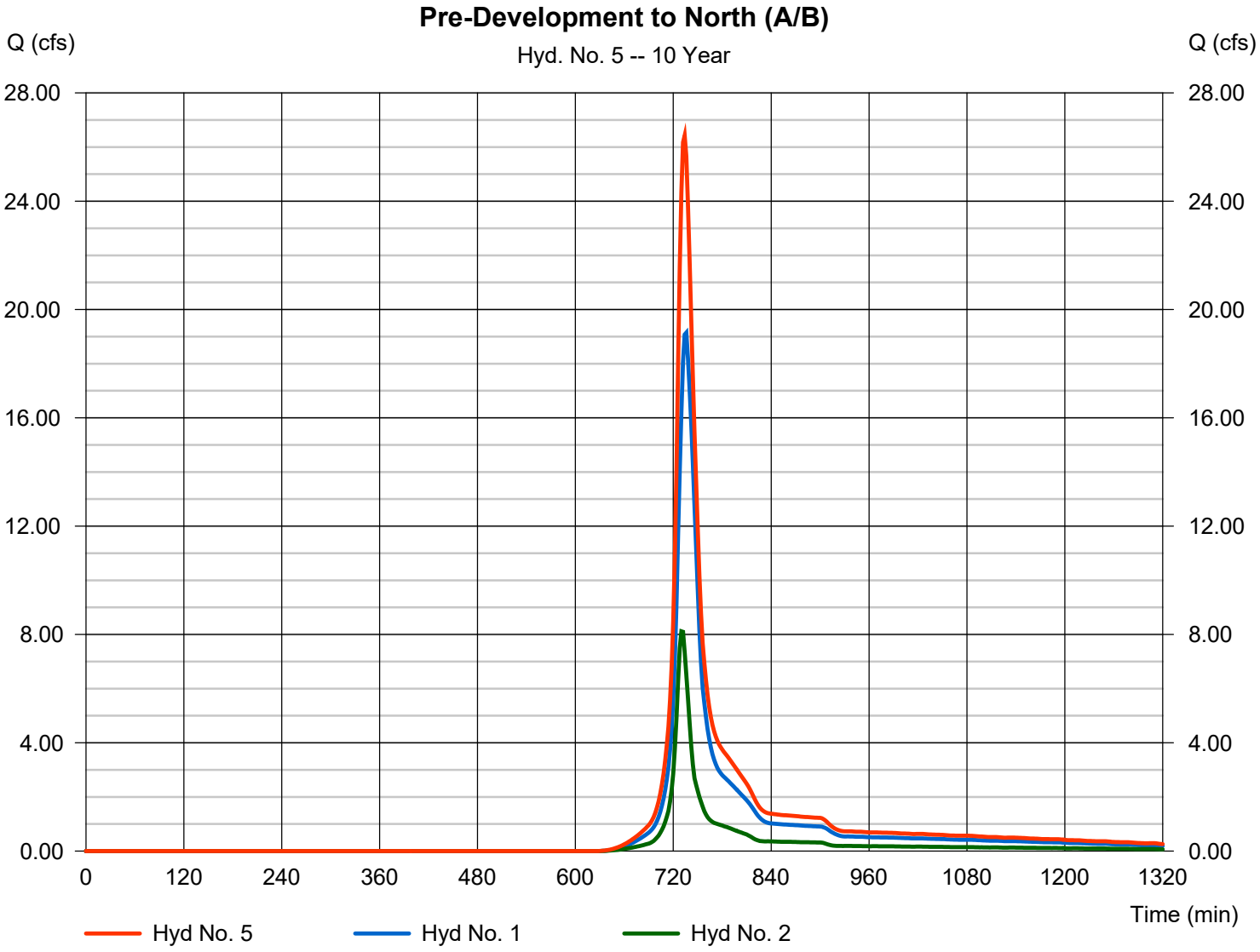


Hydrograph Report

Hyd. No. 5

Pre-Development to North (A/B)

Hydrograph type	=	Combine	Peak discharge	=	26.42 cfs
Storm frequency	=	10 yrs	Time to peak	=	734 min
Time interval	=	2 min	Hyd. volume	=	80,378 cuft
Inflow hyds.	=	1, 2	Contrib. drain. area	=	12.940 ac

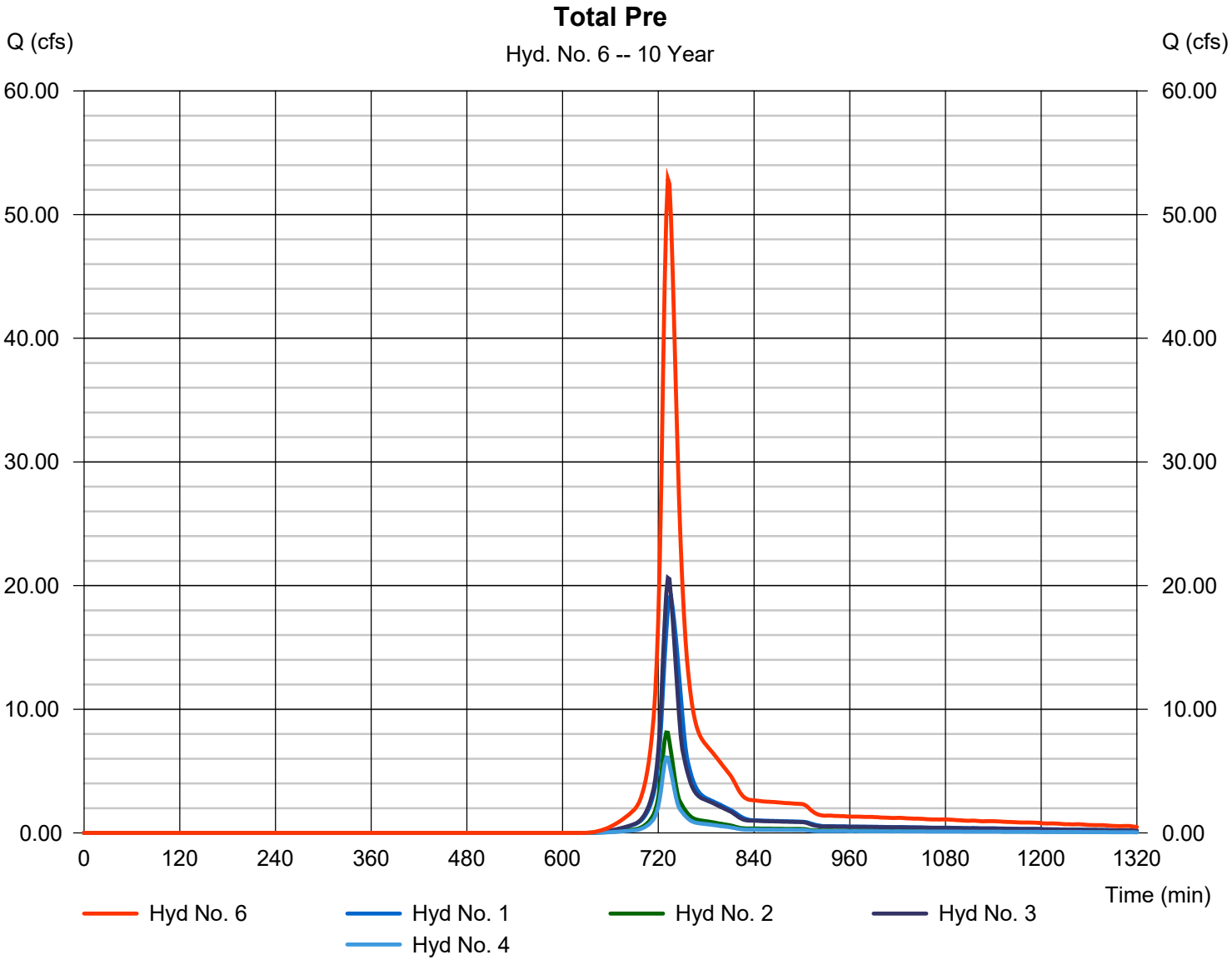


Hydrograph Report

Hyd. No. 6

Total Pre

Hydrograph type	= Combine	Peak discharge	= 52.89 cfs
Storm frequency	= 10 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 153,699 cuft
Inflow hyds.	= 1, 2, 3, 4	Contrib. drain. area	= 25.000 ac



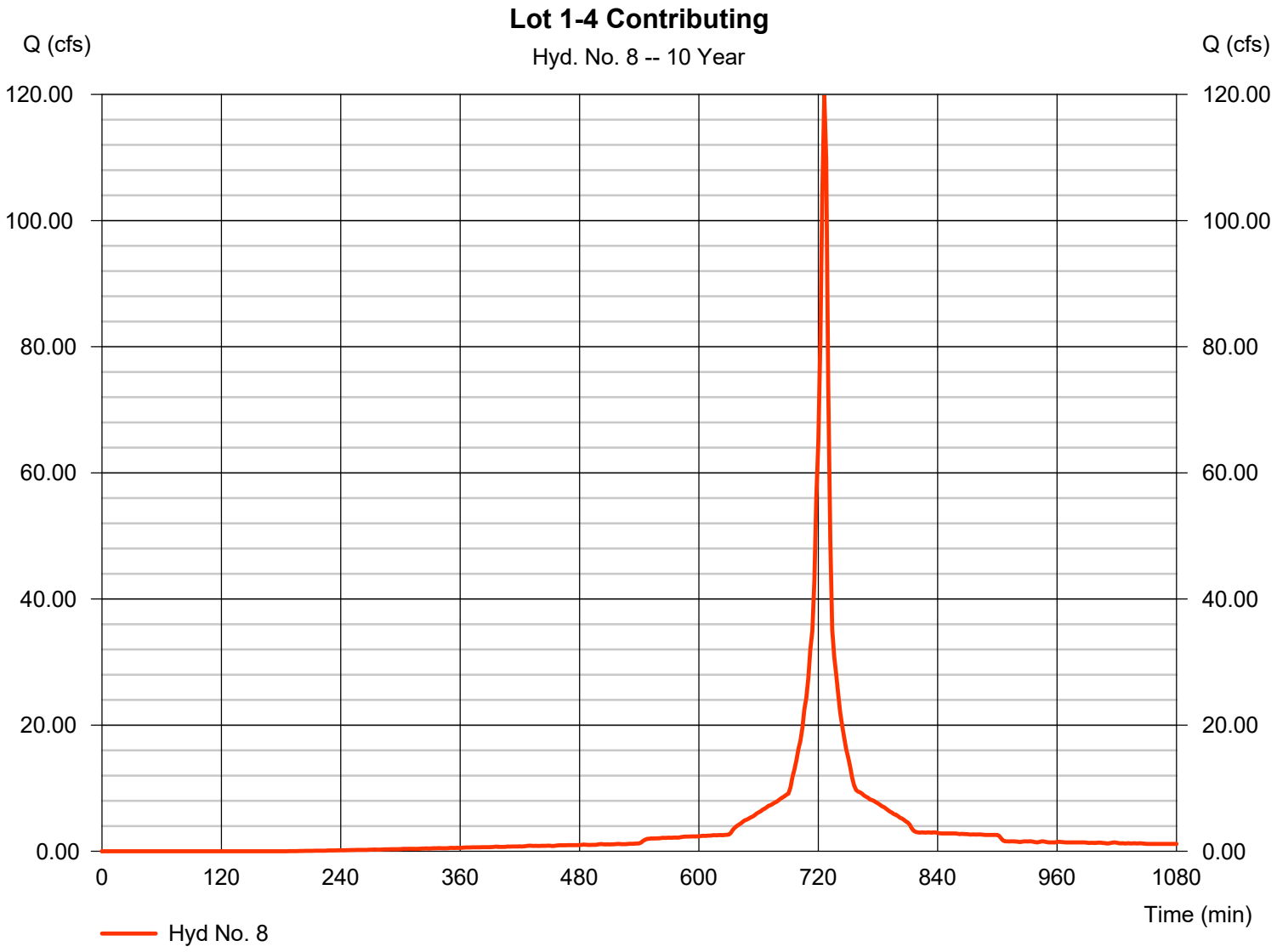
Hydrograph Report

Hyd. No. 8

Lot 1-4 Contributing

Hydrograph type	=	SCS Runoff	Peak discharge	=	119.82 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	257,830 cuft
Drainage area	=	22.200 ac	Curve number	=	97*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(21.250 x 98) + (0.950 x 74)] / 22.200



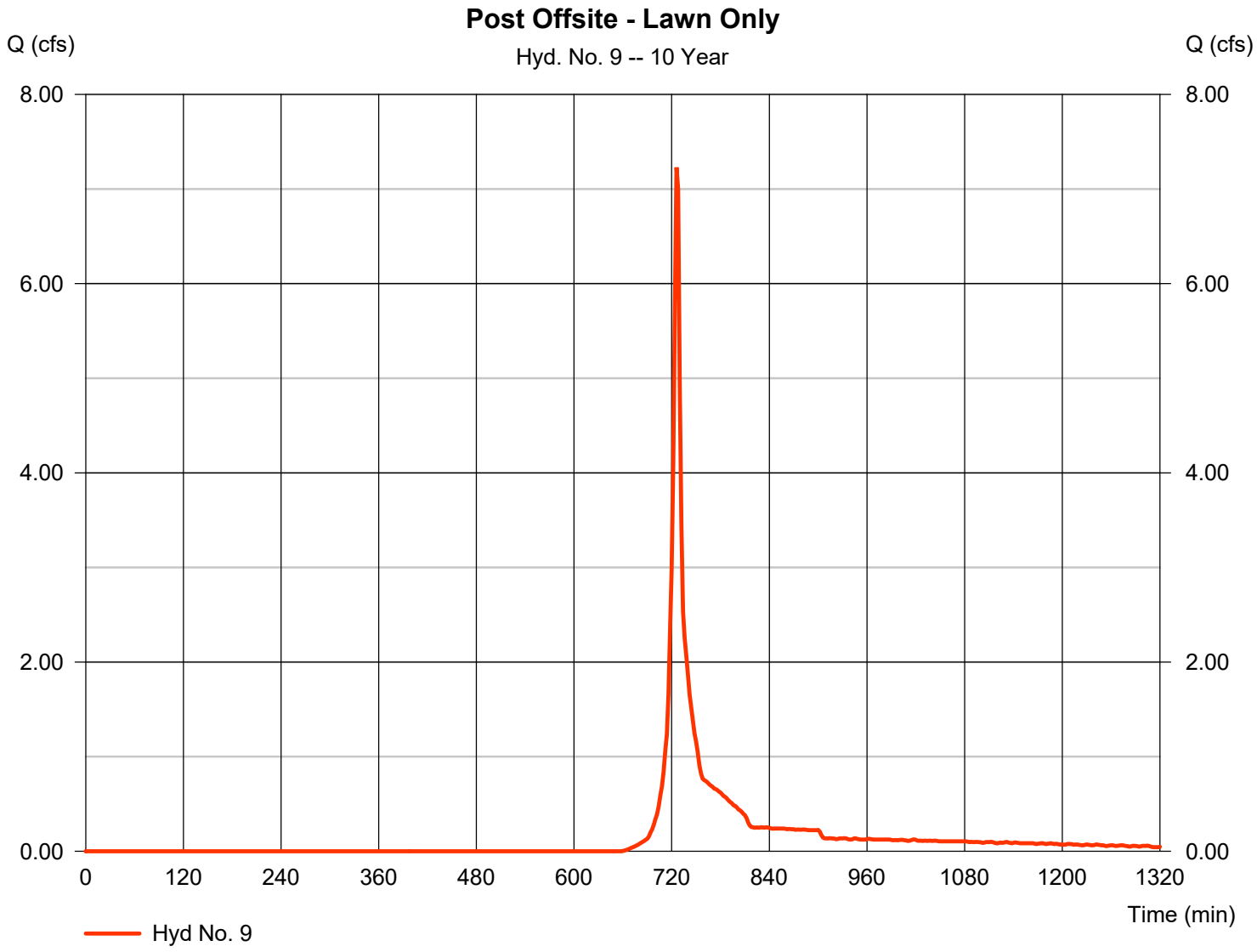
Hydrograph Report

Hyd. No. 9

Post Offsite - Lawn Only

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.229 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	13,652 cuft
Drainage area	=	2.820 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (2.820 x 74)] / 2.820



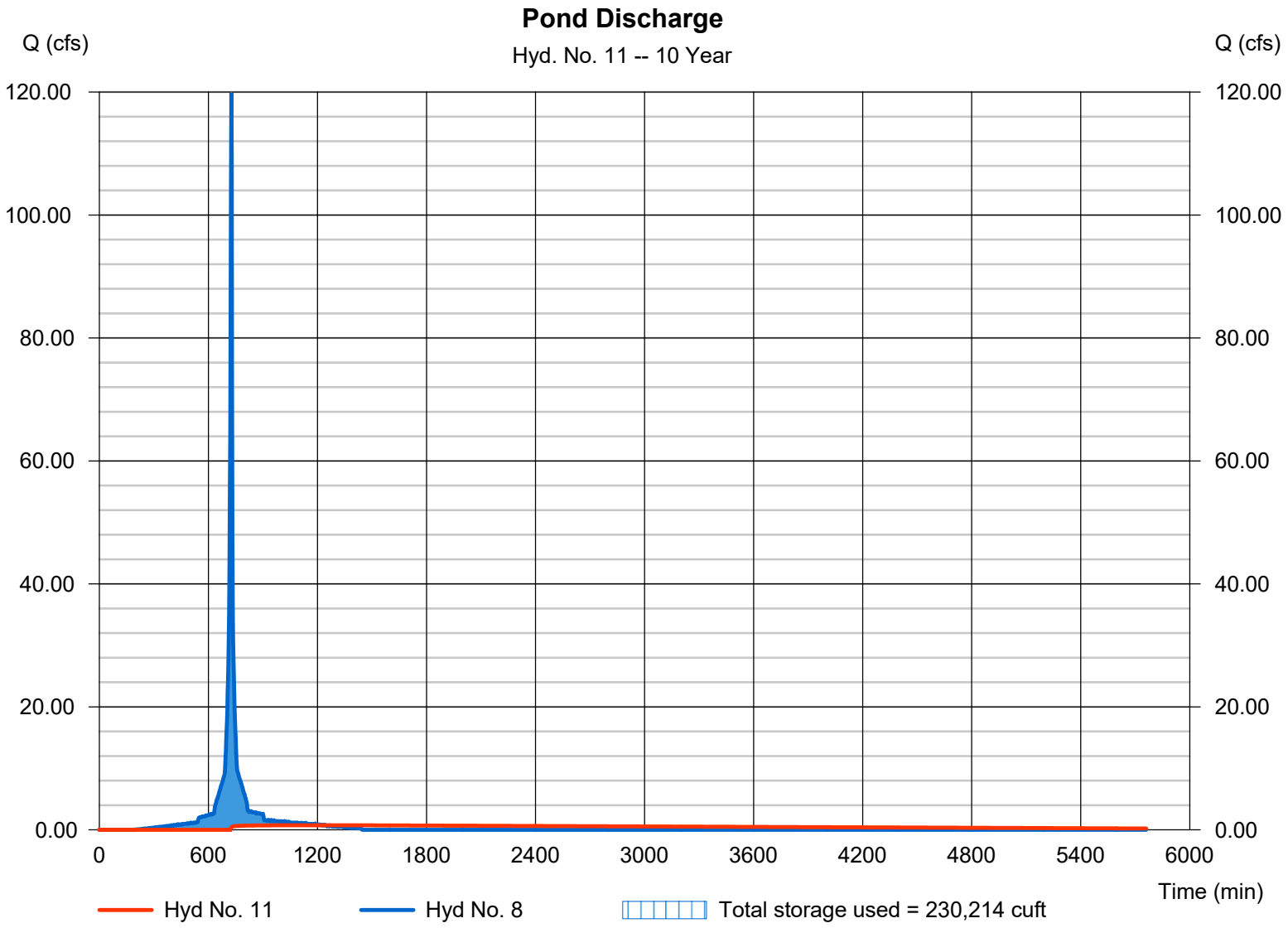
Hydrograph Report

Hyd. No. 11

Pond Discharge

Hydrograph type	=	Reservoir	Peak discharge	=	0.740 cfs
Storm frequency	=	10 yrs	Time to peak	=	1246 min
Time interval	=	2 min	Hyd. volume	=	153,339 cuft
Inflow hyd. No.	=	8 - Lot 1-4 Contributing	Max. Elevation	=	720.33 ft
Reservoir name	=	Regional Pond	Max. Storage	=	230,214 cuft

Storage Indication method used.

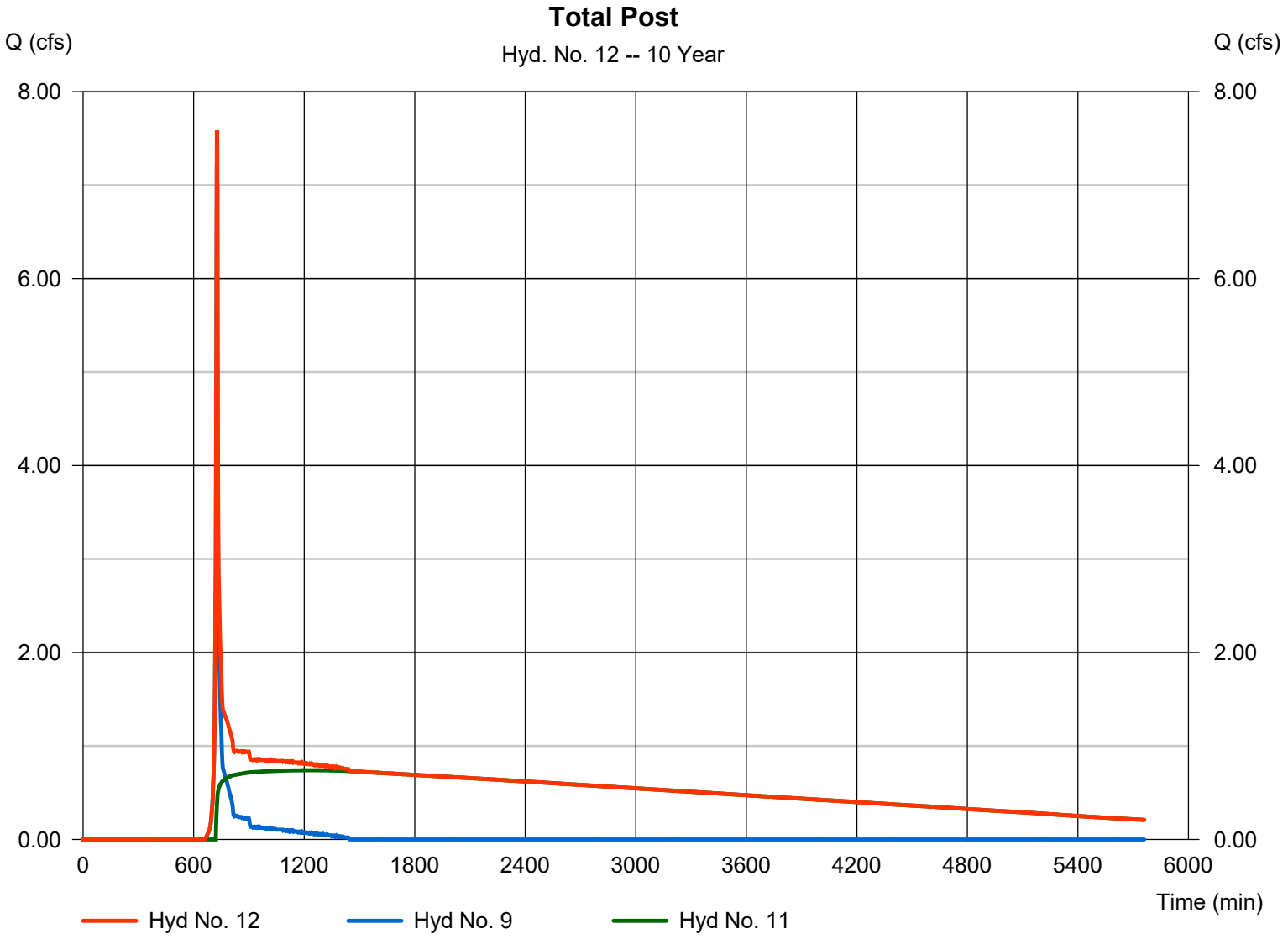


Hydrograph Report

Hyd. No. 12

Total Post

Hydrograph type	= Combine	Peak discharge	= 7.588 cfs
Storm frequency	= 10 yrs	Time to peak	= 726 min
Time interval	= 2 min	Hyd. volume	= 166,990 cuft
Inflow hyds.	= 9, 11	Contrib. drain. area	= 2.820 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	39.02	2	734	120,613	------	------	------	Pre Basin A
2	SCS Runoff	16.52	2	730	42,579	------	------	------	Pre Basin B
3	SCS Runoff	42.02	2	732	116,865	------	------	------	Pre Basin C
4	SCS Runoff	12.41	2	730	31,999	------	------	------	Pre Basin D
5	Combine	53.72	2	732	163,191	1, 2,	------	------	Pre-Development to North (A/B)
6	Combine	107.97	2	732	312,055	1, 2, 3, 4,	------	------	Total Pre
8	SCS Runoff	188.43	2	726	415,110	------	------	------	Lot 1-4 Contributing
9	SCS Runoff	15.62	2	726	29,358	------	------	------	Post Offsite - Lawn Only
11	Reservoir	3.414	2	904	278,395	8	721.35	343,213	Pond Discharge
12	Combine	16.30	2	726	307,753	9, 11	------	------	Total Post

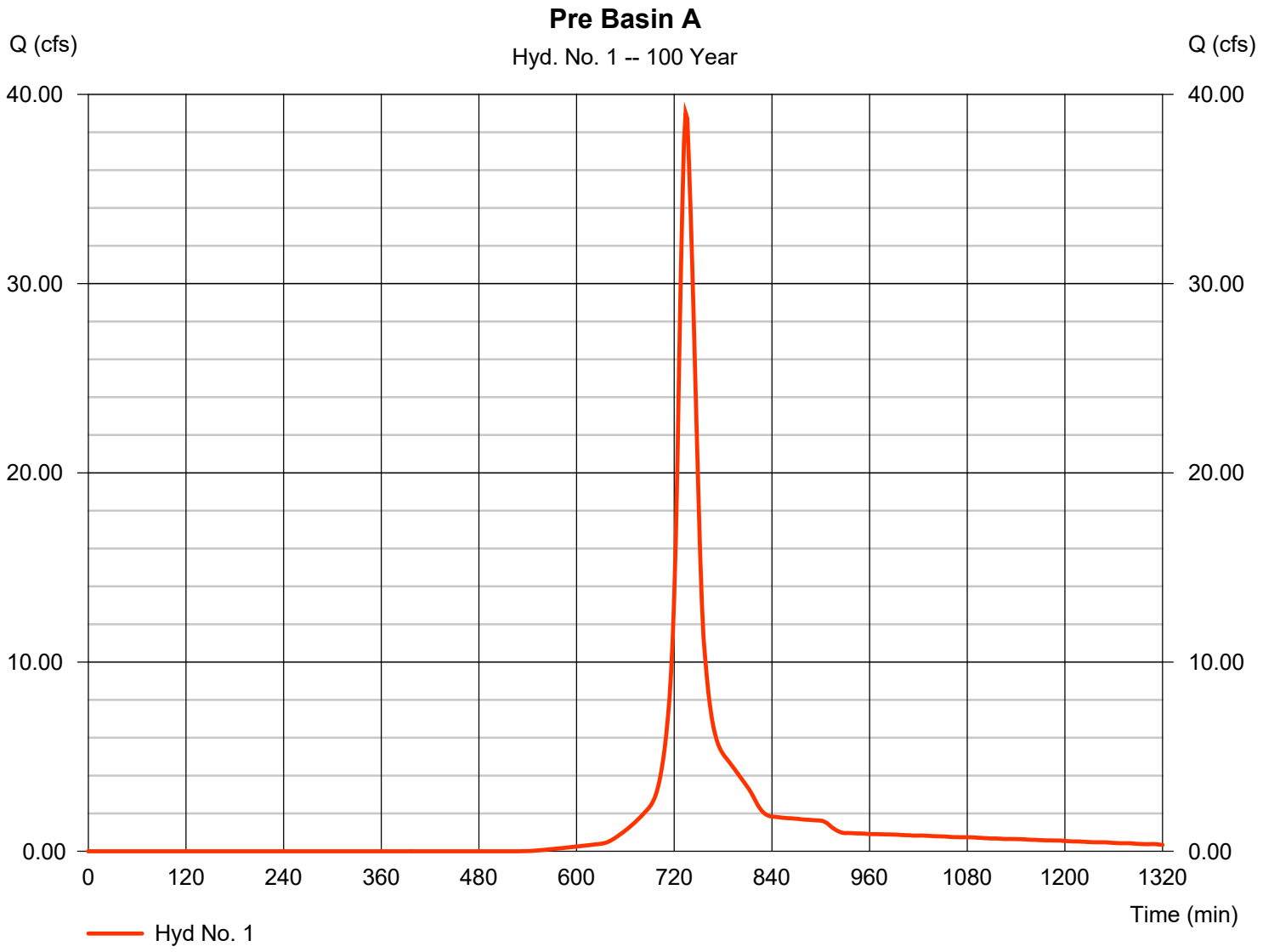
Hydrograph Report

Hyd. No. 1

Pre Basin A

Hydrograph type	=	SCS Runoff	Peak discharge	=	39.02 cfs
Storm frequency	=	100 yrs	Time to peak	=	734 min
Time interval	=	2 min	Hyd. volume	=	120,613 cuft
Drainage area	=	9.640 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	18.70 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Cir - Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.640 x 78)] / 9.640



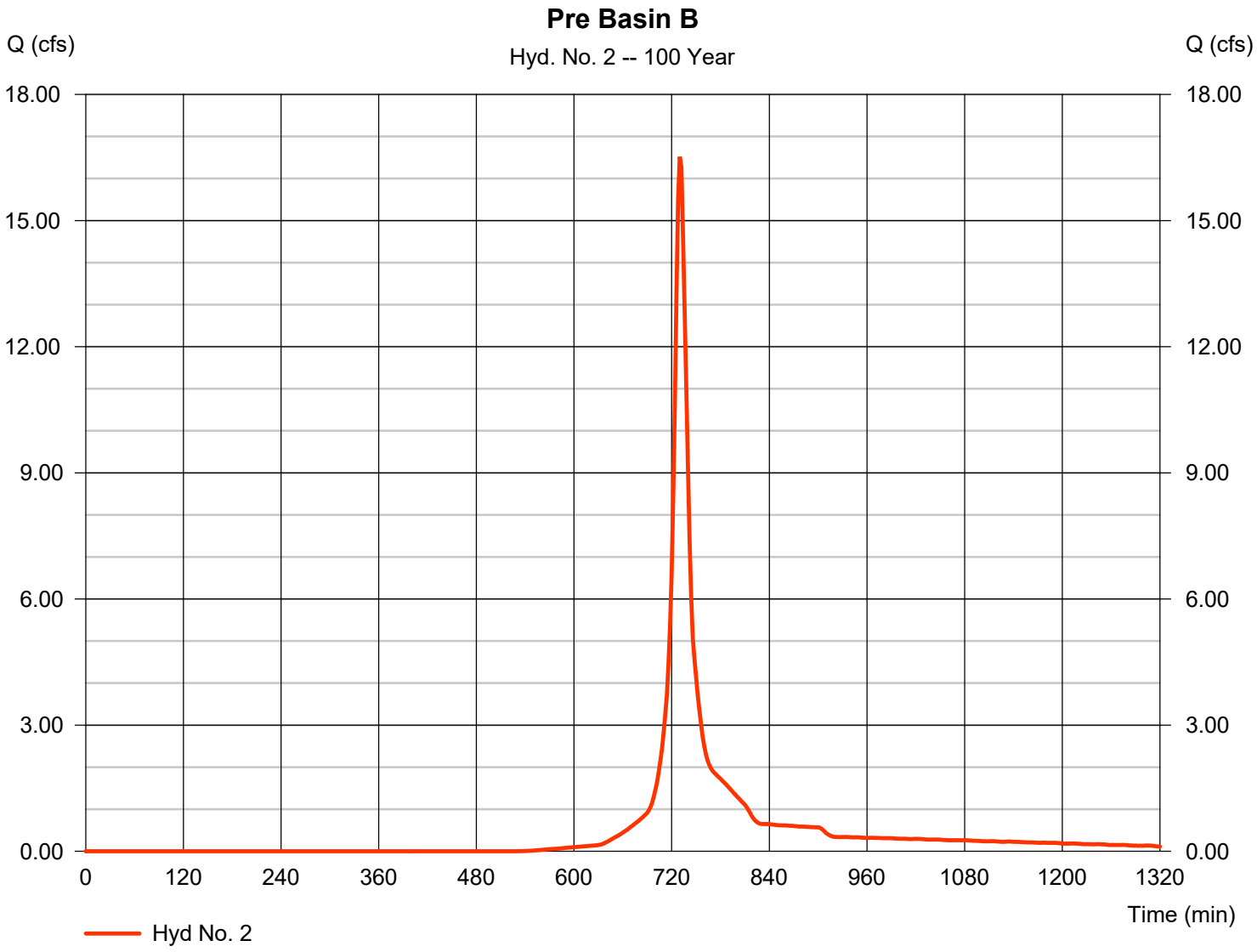
Hydrograph Report

Hyd. No. 2

Pre Basin B

Hydrograph type	=	SCS Runoff	Peak discharge	=	16.52 cfs
Storm frequency	=	100 yrs	Time to peak	=	730 min
Time interval	=	2 min	Hyd. volume	=	42,579 cuft
Drainage area	=	3.300 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	12.10 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape Cn	=	484

* Composite (Area/CN) = [(3.300 x 78)] / 3.300



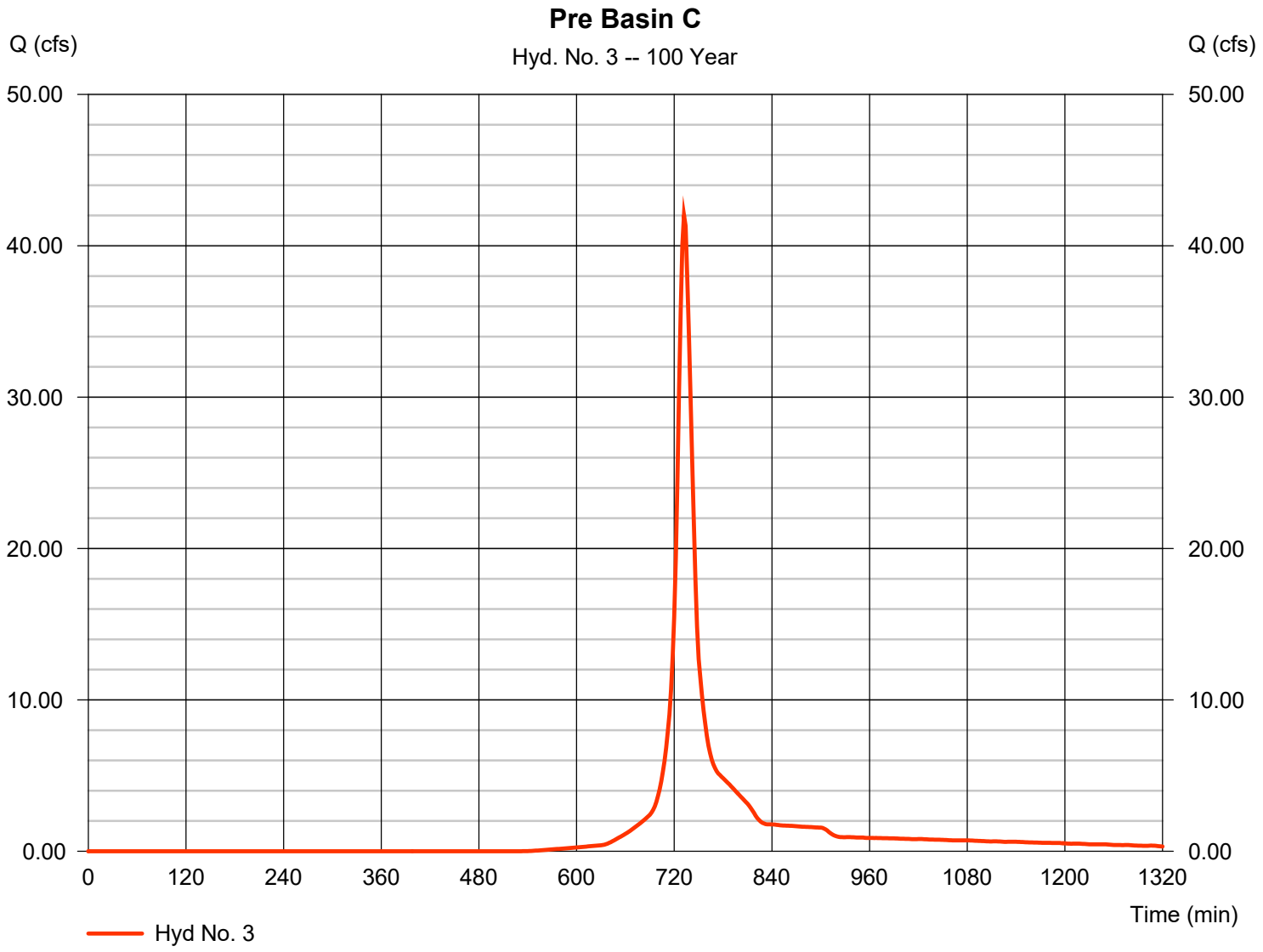
Hydrograph Report

Hyd. No. 3

Pre Basin C

Hydrograph type	=	SCS Runoff	Peak discharge	=	42.02 cfs
Storm frequency	=	100 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	116,865 cuft
Drainage area	=	9.580 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	15.10 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(9.580 x 78)] / 9.580



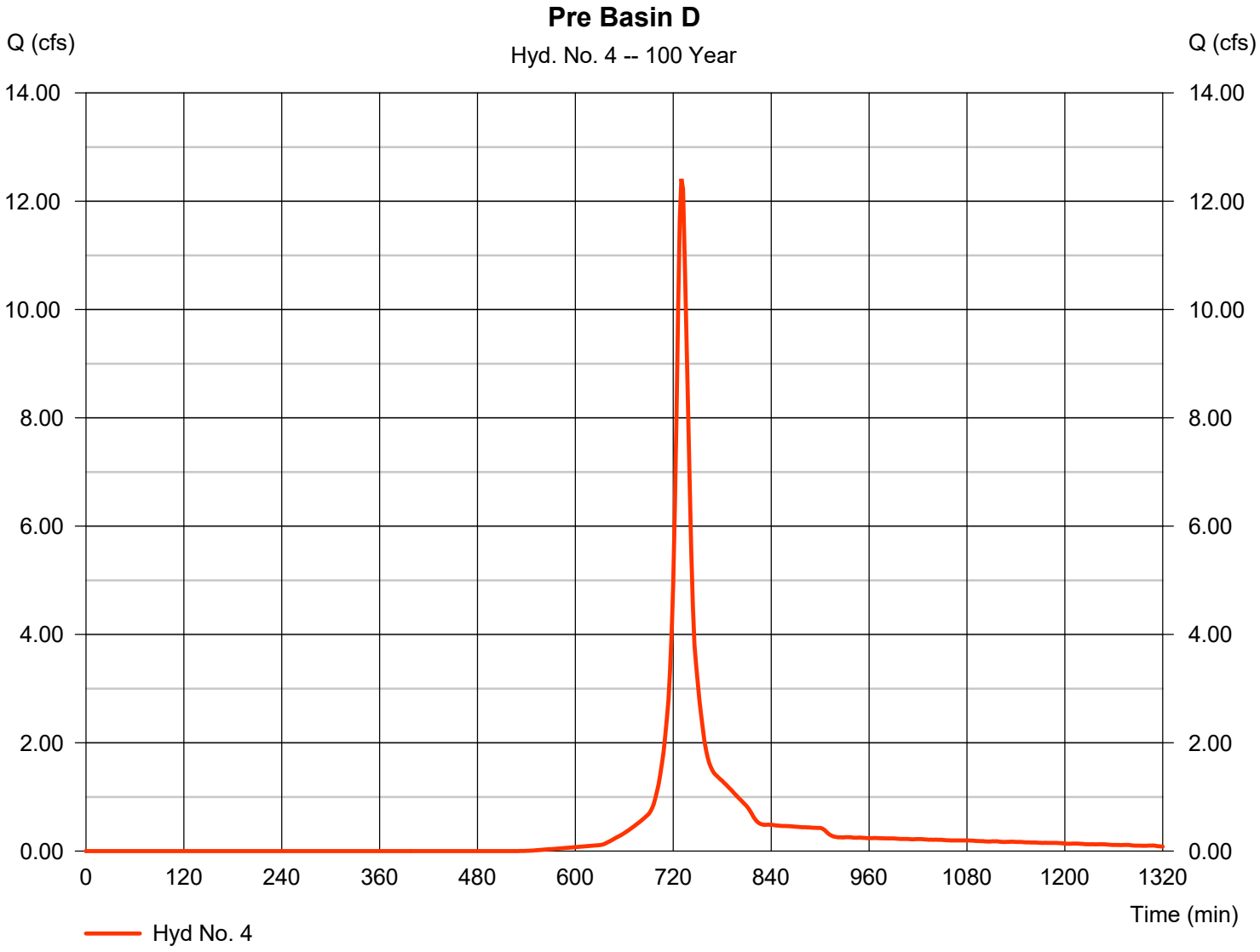
Hydrograph Report

Hyd. No. 4

Pre Basin D

Hydrograph type	=	SCS Runoff	Peak discharge	=	12.41 cfs
Storm frequency	=	100 yrs	Time to peak	=	730 min
Time interval	=	2 min	Hyd. volume	=	31,999 cuft
Drainage area	=	2.480 ac	Curve number	=	78*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	13.30 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(2.480 x 78)] / 2.480

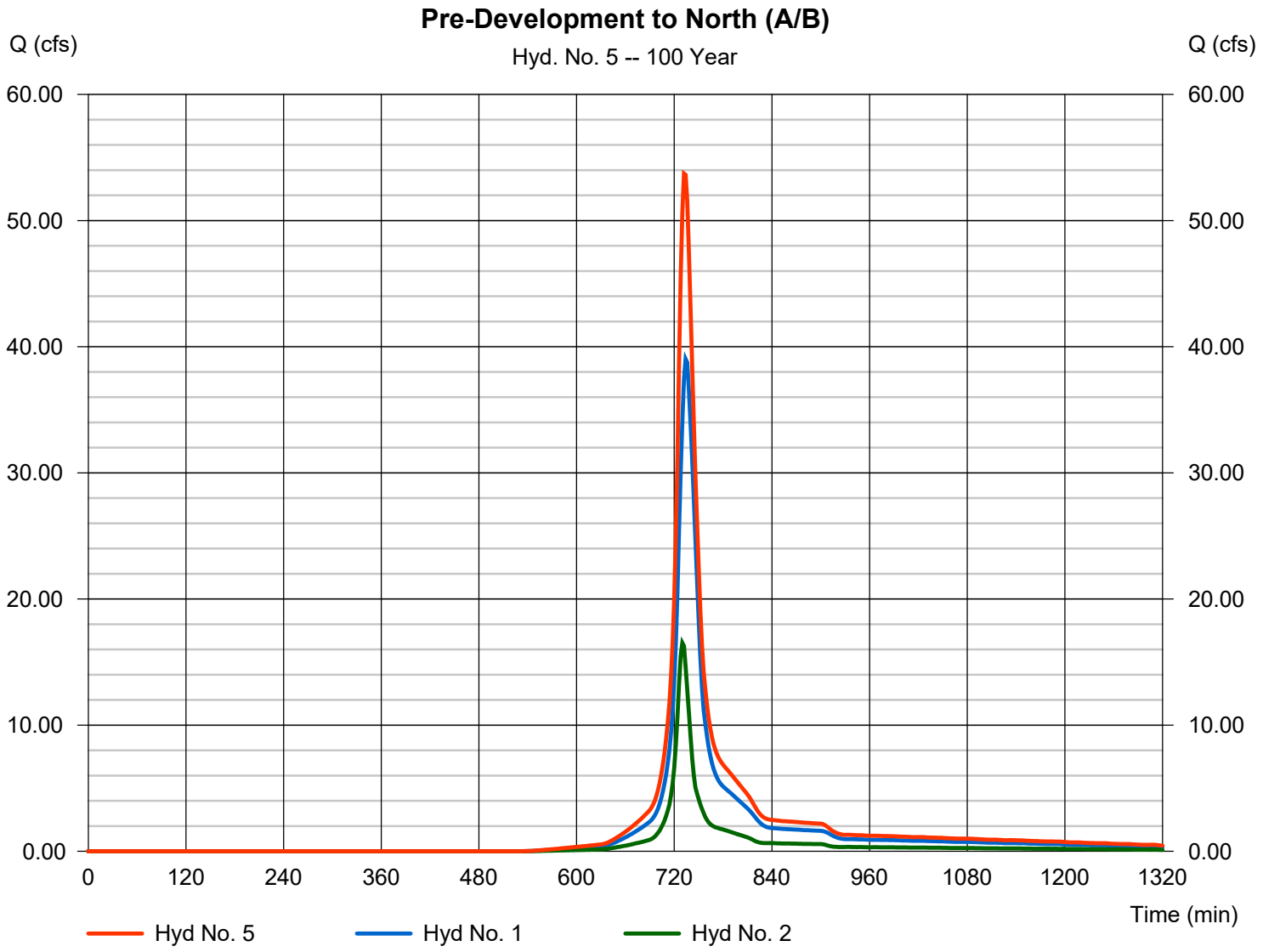


Hydrograph Report

Hyd. No. 5

Pre-Development to North (A/B)

Hydrograph type	= Combine	Peak discharge	= 53.72 cfs
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 163,191 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 12.940 ac

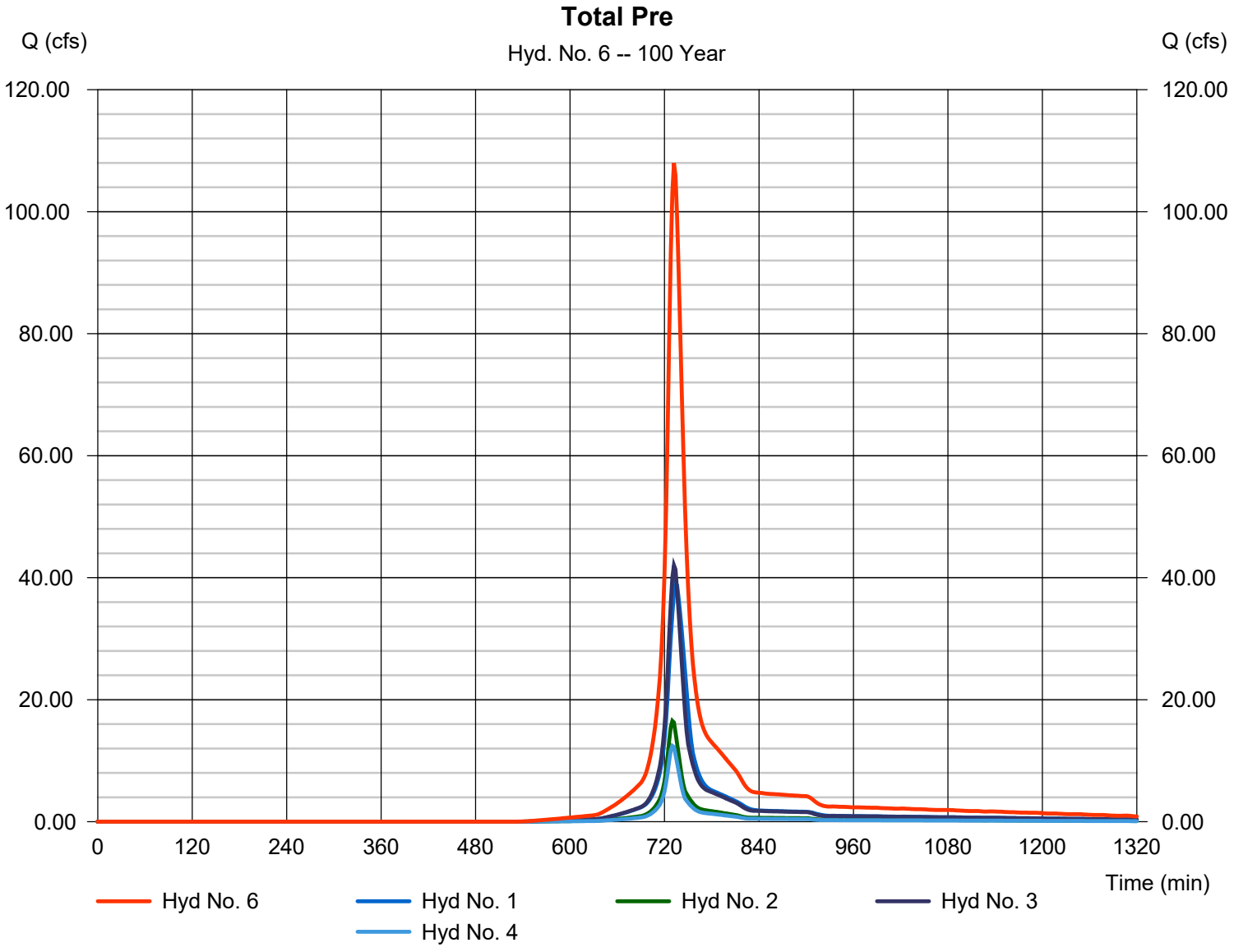


Hydrograph Report

Hyd. No. 6

Total Pre

Hydrograph type	= Combine	Peak discharge	= 107.97 cfs
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 312,055 cuft
Inflow hyds.	= 1, 2, 3, 4	Contrib. drain. area	= 25.000 ac



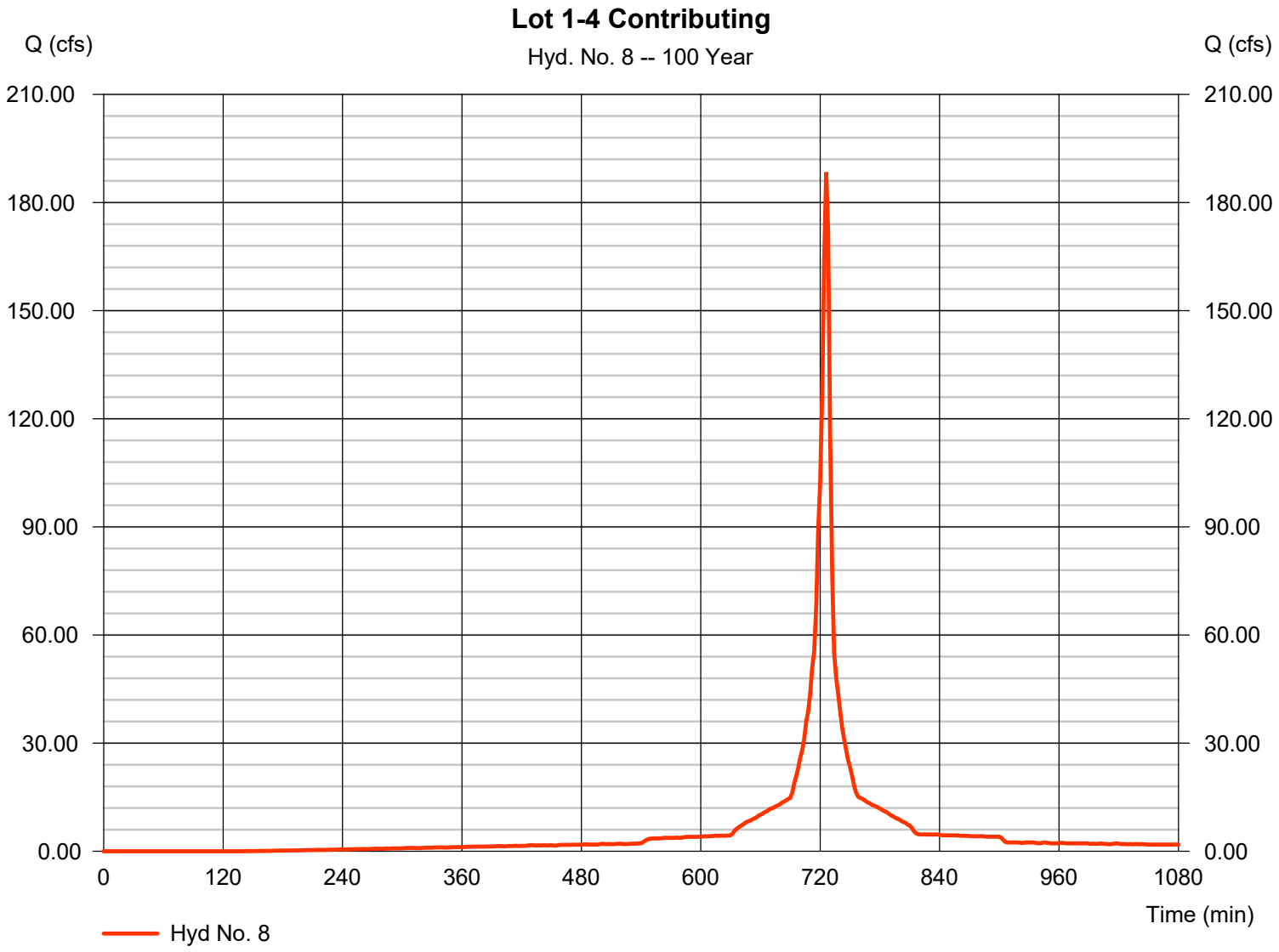
Hydrograph Report

Hyd. No. 8

Lot 1-4 Contributing

Hydrograph type	=	SCS Runoff	Peak discharge	=	188.43 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	415,110 cuft
Drainage area	=	22.200 ac	Curve number	=	97*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gateway Cir - Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(21.250 x 98) + (0.950 x 74)] / 22.200



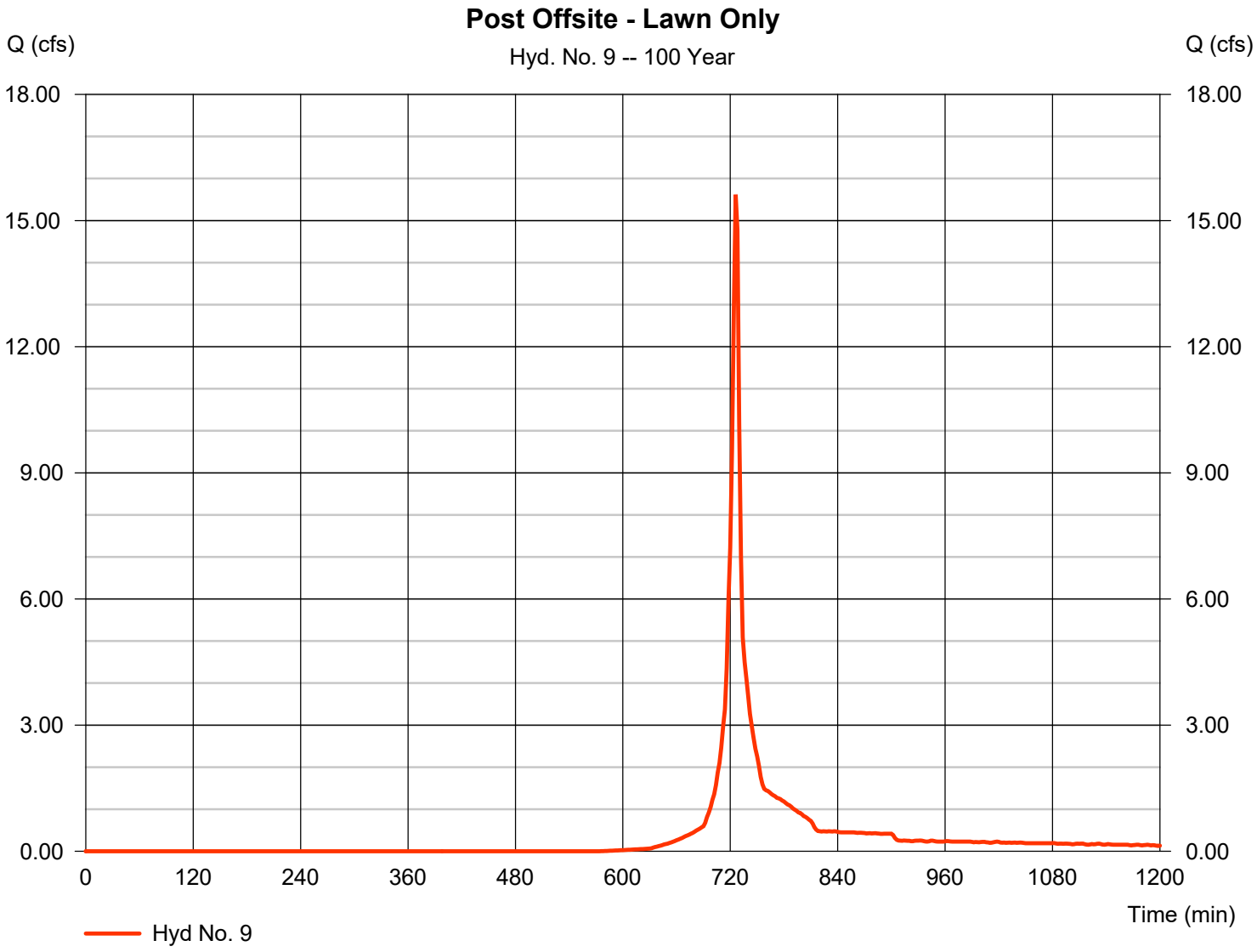
Hydrograph Report

Hyd. No. 9

Post Offsite - Lawn Only

Hydrograph type	=	SCS Runoff	Peak discharge	=	15.62 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	29,358 cuft
Drainage area	=	2.820 ac	Curve number	=	74*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (2.820 x 74)] / 2.820



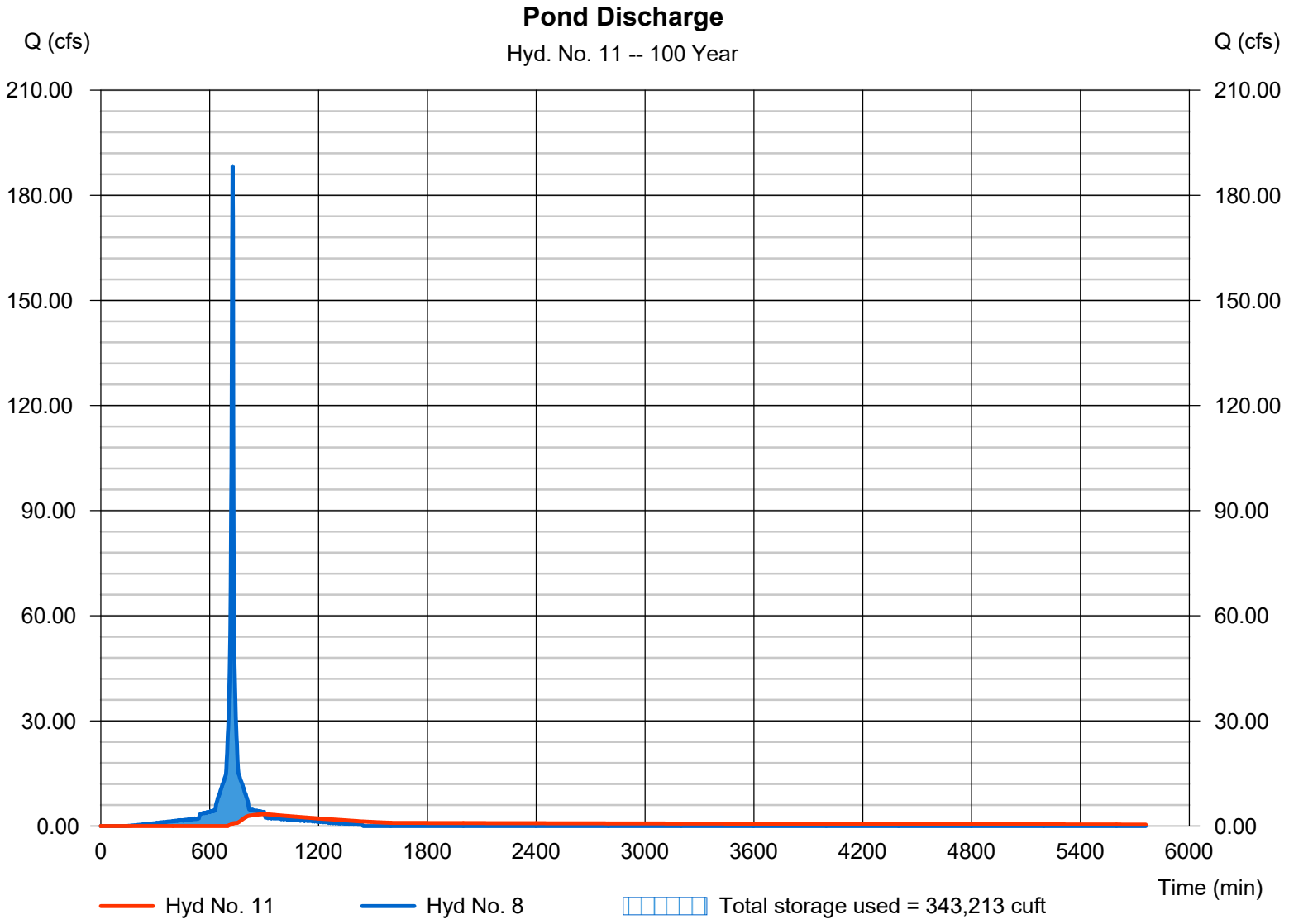
Hydrograph Report

Hyd. No. 11

Pond Discharge

Hydrograph type	=	Reservoir	Peak discharge	=	3.414 cfs
Storm frequency	=	100 yrs	Time to peak	=	904 min
Time interval	=	2 min	Hyd. volume	=	278,395 cuft
Inflow hyd. No.	=	8 - Lot 1-4 Contributing	Max. Elevation	=	721.35 ft
Reservoir name	=	Regional Pond	Max. Storage	=	343,213 cuft

Storage Indication method used.

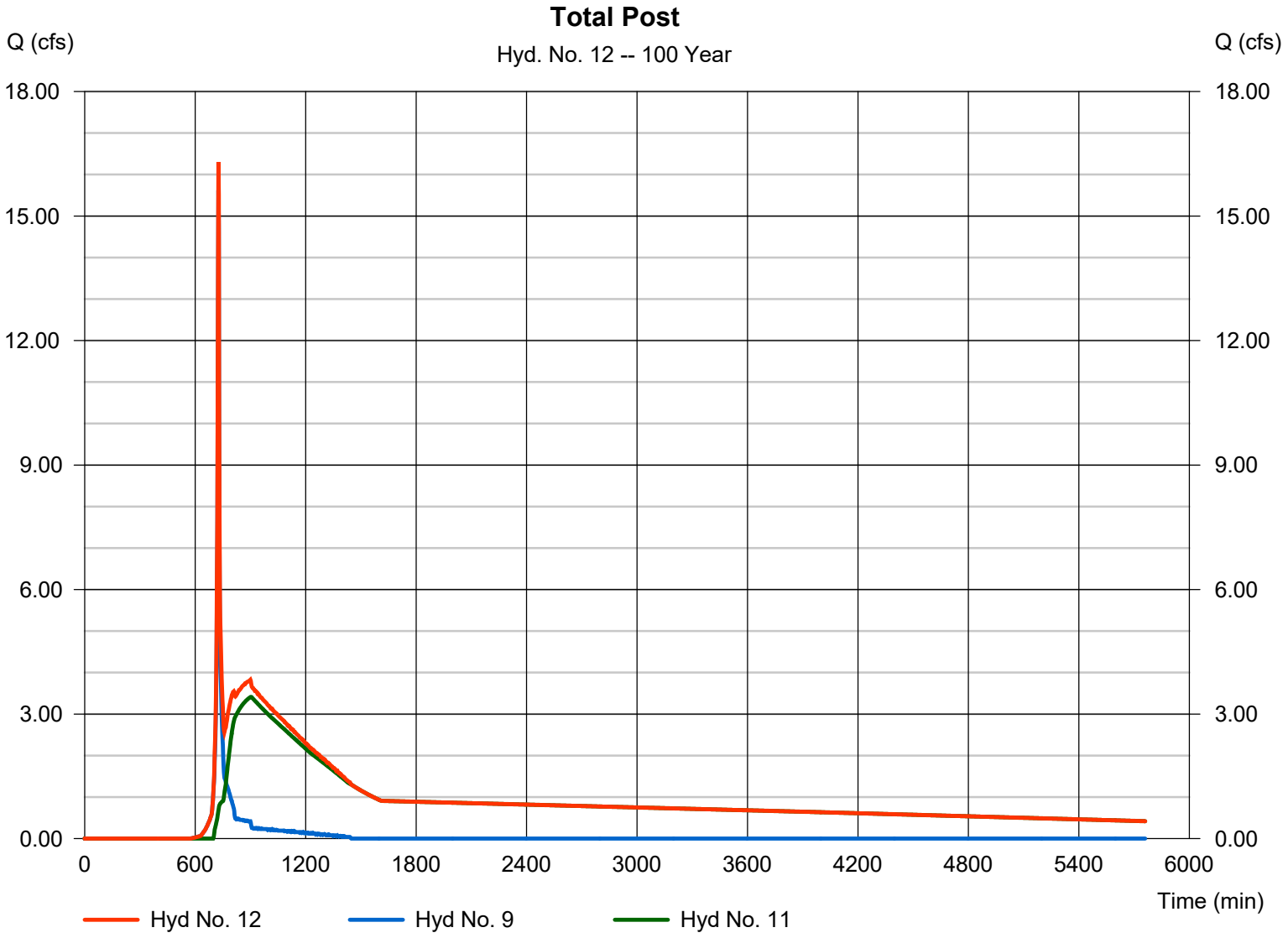


Hydrograph Report

Hyd. No. 12

Total Post

Hydrograph type	= Combine	Peak discharge	= 16.30 cfs
Storm frequency	= 100 yrs	Time to peak	= 726 min
Time interval	= 2 min	Hyd. volume	= 307,753 cuft
Inflow hyds.	= 9, 11	Contrib. drain. area	= 2.820 ac



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	--------
2	67.0175	12.8000	0.8569	--------
3	0.0000	0.0000	0.0000	--------
5	76.3148	14.3000	0.8285	--------
10	87.9879	15.5000	0.8272	--------
25	104.7368	16.7000	0.8265	--------
50	117.3990	17.4000	0.8248	--------
100	133.7316	18.3000	0.8296	--------

File name: SampleFHA.idf

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.68	4.60	3.88	3.37	2.98	2.68	2.44	2.24	2.07	1.93	1.81	1.70
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.57	5.43	4.65	4.08	3.64	3.30	3.02	2.79	2.59	2.42	2.28	2.15
10	7.23	6.04	5.21	4.59	4.12	3.74	3.43	3.17	2.95	2.77	2.60	2.46
25	8.23	6.94	6.02	5.33	4.80	4.37	4.02	3.72	3.47	3.25	3.07	2.90
50	9.04	7.65	6.67	5.92	5.34	4.87	4.48	4.16	3.88	3.64	3.43	3.25
100	9.81	8.35	7.30	6.50	5.87	5.36	4.94	4.59	4.28	4.02	3.79	3.59

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	2.38	2.69	0.00	3.32	3.76	4.50	5.35	5.85
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	2.38	2.69	0.00	3.32	3.76	0.00	5.35	5.85

Appendix D: Web Soil Survey Map

Hydrologic Soil Group—Kenosha and Racine Counties, Wisconsin
(Golden Oil - Somers (12th St & 120th Ave))

Map Scale: 1:2,590 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kenosha and Racine Counties, Wisconsin
Survey Area Data: Version 19, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 20, 2020—Jun 25, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	C/D	2.9	10.7%
EtA	Elliott silt loam, 0 to 2 percent slopes	C/D	9.4	34.5%
MeB	Markham silt loam, 2 to 6 percent slopes	C	7.5	27.5%
MeB2	Markham silt loam, 2 to 6 percent slopes, eroded	C	1.4	5.3%
OzaB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	C	6.0	22.1%
Totals for Area of Interest			**27.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

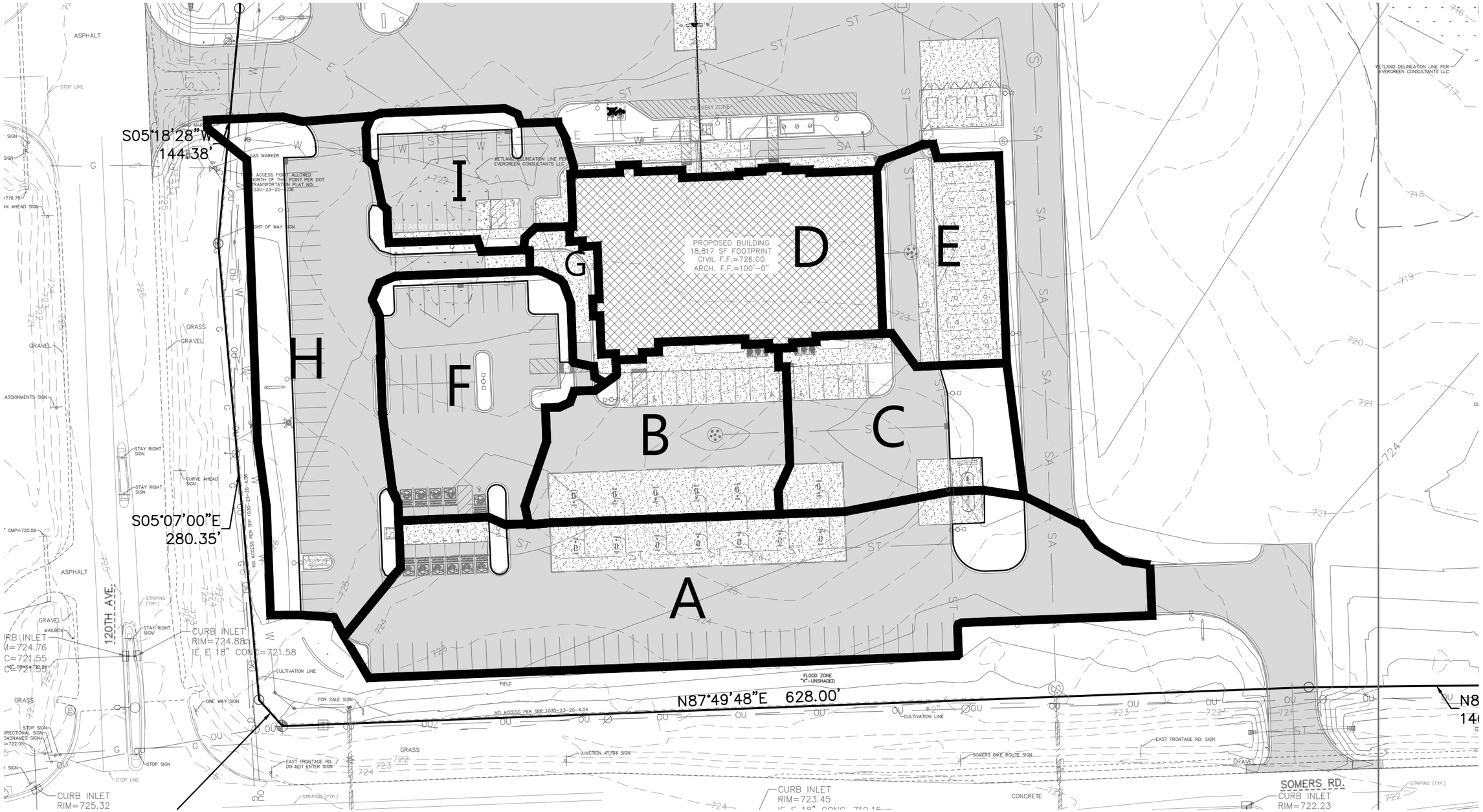
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix E: Geotechnical Report & Stormwater Soil Evaluation

Appendix F: Storm Sewer Basin Map



PIPE BASIN	TOTAL (SF)	TOTAL (AC)	BLDG (SF)	BLDG (AC)	PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
A	40,160	0.92	0	0.00	38,220	0.88	1,940	0.04
B	14,554	0.33	0	0.00	14,554	0.33	0	0.00
C	13,030	0.30	0	0.00	9,950	0.23	3,080	0.07
D	18,817	0.43	18,817	0.43	0	0.00	0	0.00
E	9,430	0.22	0	0.00	9,430	0.22	0	0.00
F	16,007	0.37	0	0.00	13,677	0.31	2,330	0.05
G	2,204	0.05	0	0.00	2,204	0.05	0	0.00
H	25,698	0.59	0	0.00	17,168	0.39	8,530	0.20
I	9,138	0.21	0	0.00	7,718	0.18	1,420	0.03

STORM SEWER BASIN MAP

NORTH

1"= 60'

60' 0 60' 120'

SCALE 1"=60' (11X17) FEET

Appendix G: Storm Sewer TR-55 Calculations

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)							Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	-------	-------	-------	-------	4.965	-------	-------	7.809	Pipe Basin A
2	SCS Runoff	------	-------	-------	-------	-------	1.800	-------	-------	2.814	Pipe Basin B
3	SCS Runoff	------	-------	-------	-------	-------	1.478	-------	-------	2.433	Pipe Basin C
4	SCS Runoff	------	-------	-------	-------	-------	2.345	-------	-------	3.667	Pipe Basin D
5	SCS Runoff	------	-------	-------	-------	-------	1.200	-------	-------	1.876	Pipe Basin E
6	SCS Runoff	------	-------	-------	-------	-------	1.886	-------	-------	3.013	Pipe Basin F
7	SCS Runoff	------	-------	-------	-------	-------	0.273	-------	-------	0.426	Pipe Basin G
8	SCS Runoff	------	-------	-------	-------	-------	2.763	-------	-------	4.658	Pipe Basin H
9	SCS Runoff	------	-------	-------	-------	-------	1.100	-------	-------	1.758	Pipe Basin I

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	4.965	2	726	10,685	------	------	------	Pipe Basin A
2	SCS Runoff	1.800	2	726	3,959	------	------	------	Pipe Basin B
3	SCS Runoff	1.478	2	726	2,947	------	------	------	Pipe Basin C
4	SCS Runoff	2.345	2	726	5,159	------	------	------	Pipe Basin D
5	SCS Runoff	1.200	2	726	2,640	------	------	------	Pipe Basin E
6	SCS Runoff	1.886	2	726	3,914	------	------	------	Pipe Basin F
7	SCS Runoff	0.273	2	726	600	------	------	------	Pipe Basin G
8	SCS Runoff	2.763	2	726	5,406	------	------	------	Pipe Basin H
9	SCS Runoff	1.100	2	726	2,283	------	------	------	Pipe Basin I

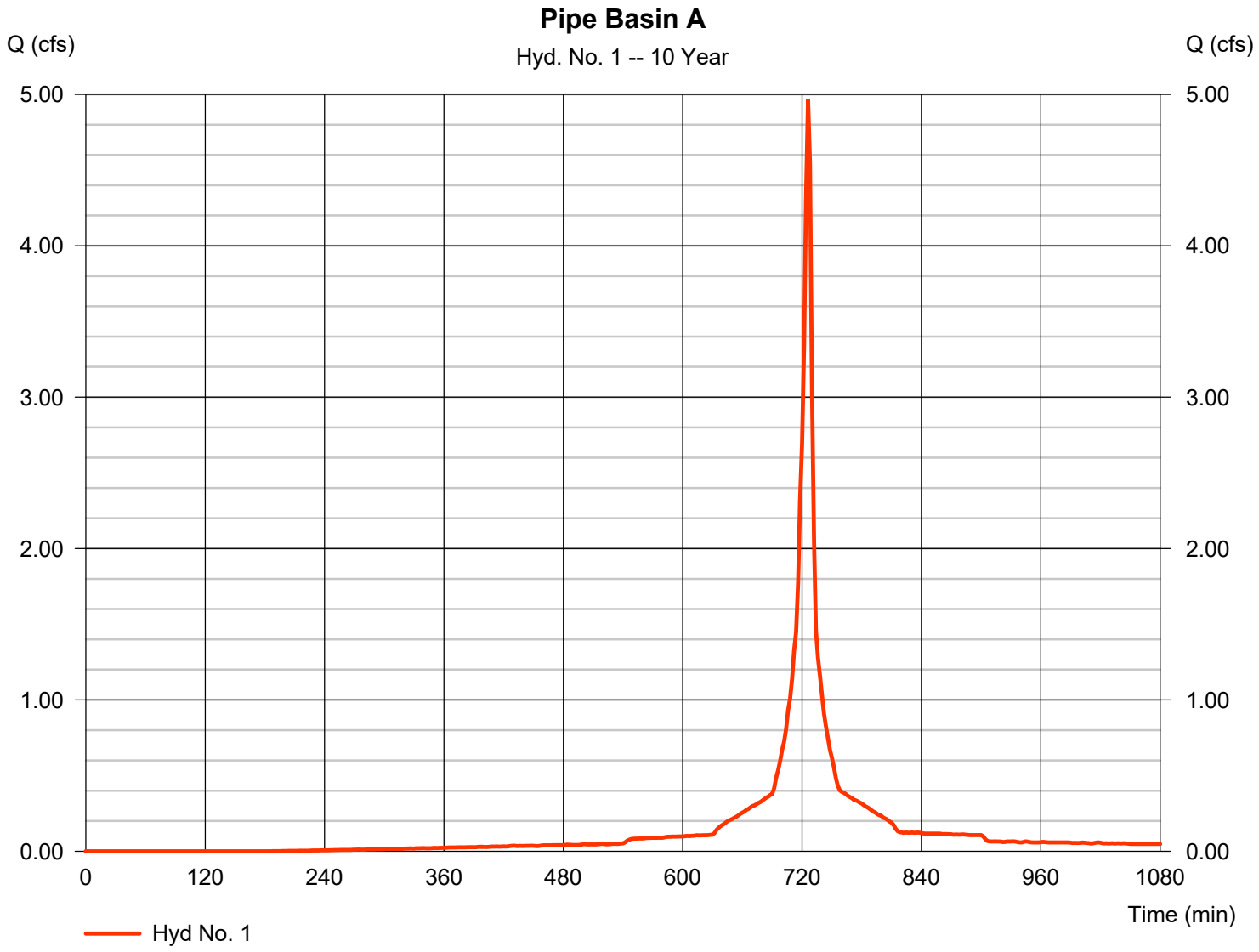
Hydrograph Report

Hyd. No. 1

Pipe Basin A

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.965 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	10,685 cuft
Drainage area	=	0.920 ac	Curve number	=	97*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.880 x 98) + (0.040 x 74)] / 0.920



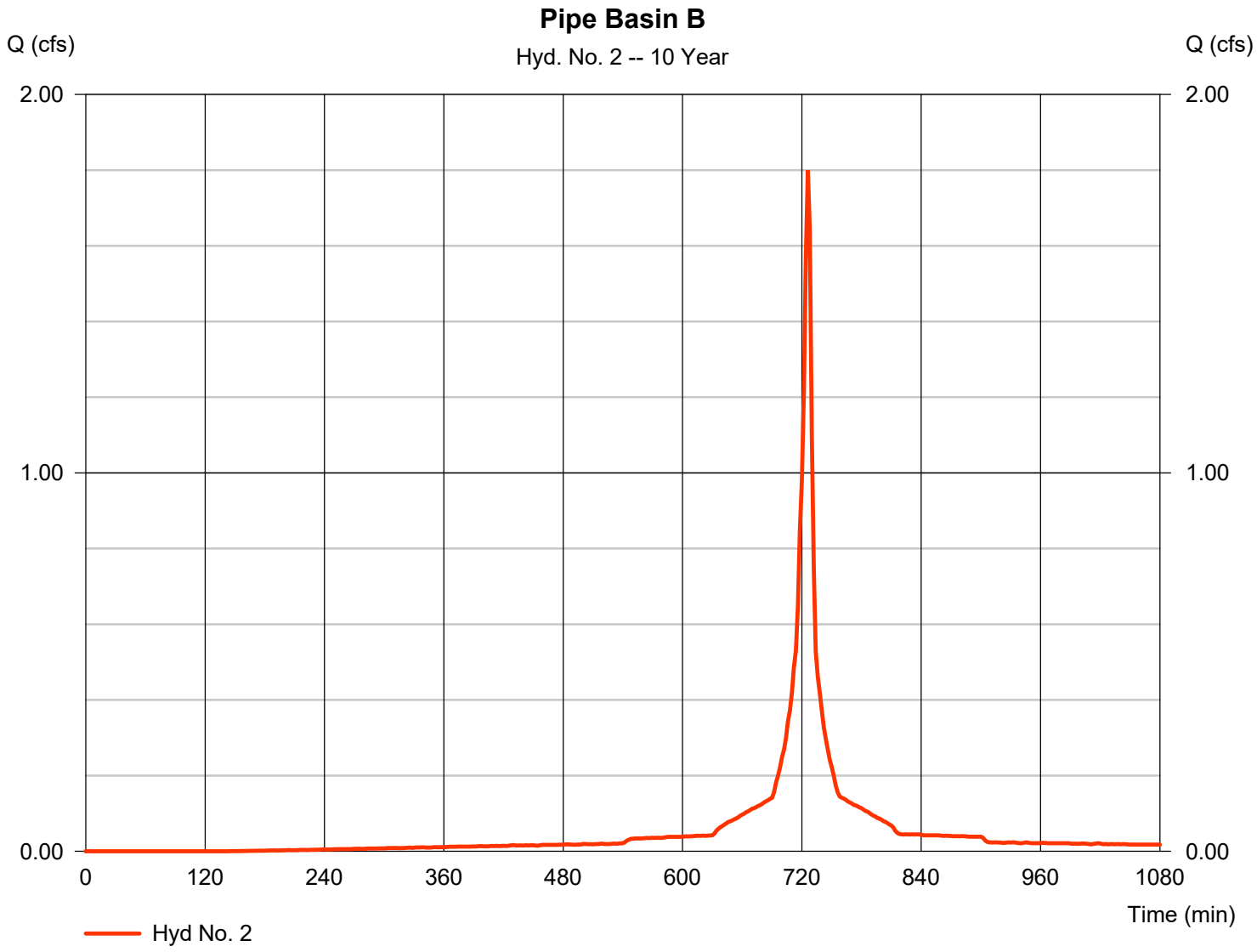
Hydrograph Report

Hyd. No. 2

Pipe Basin B

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.800 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	3,959 cuft
Drainage area	=	0.330 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.330 x 98)] / 0.330



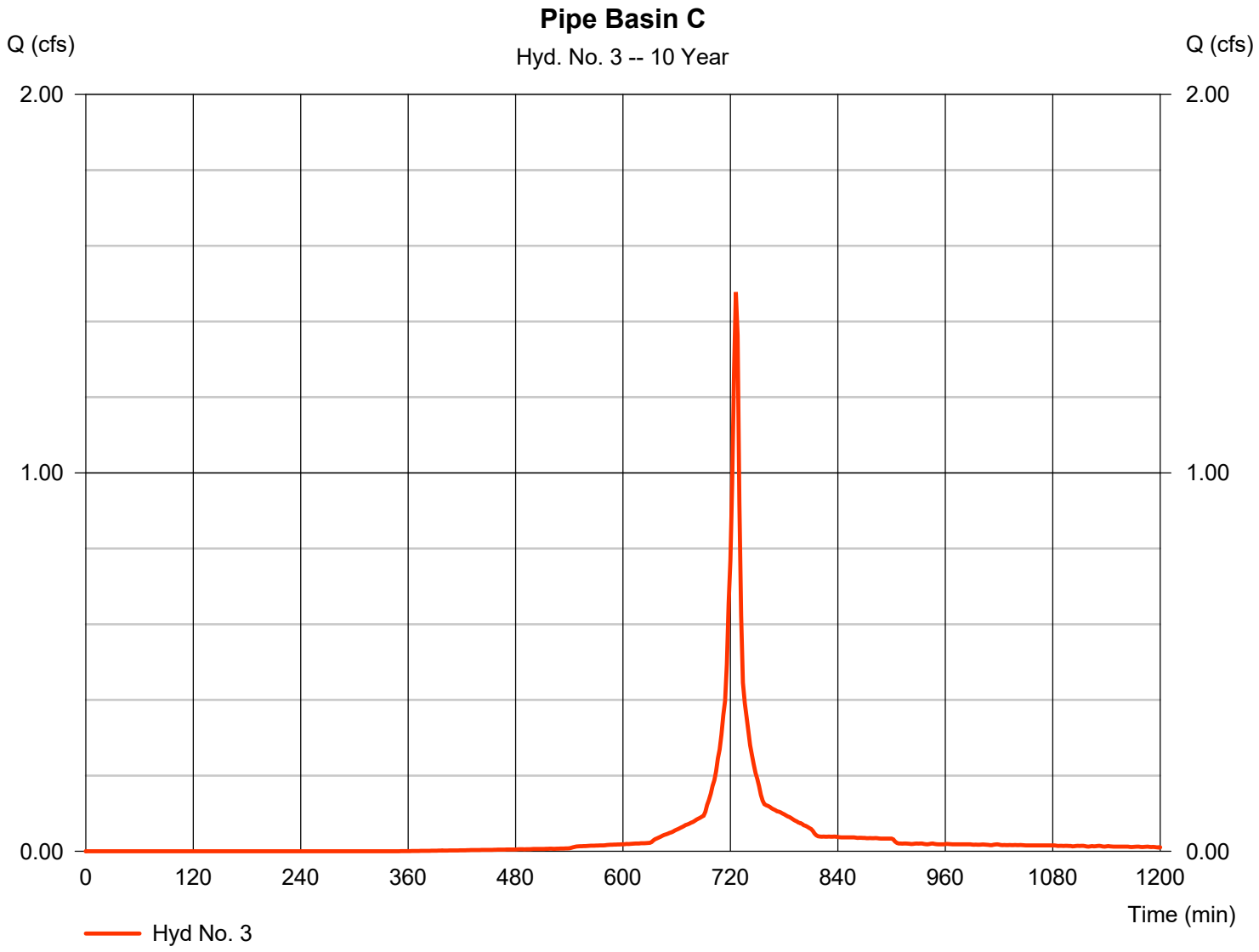
Hydrograph Report

Hyd. No. 3

Pipe Basin C

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.478 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	2,947 cuft
Drainage area	=	0.300 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.230 x 98) + (0.070 x 74)] / 0.300



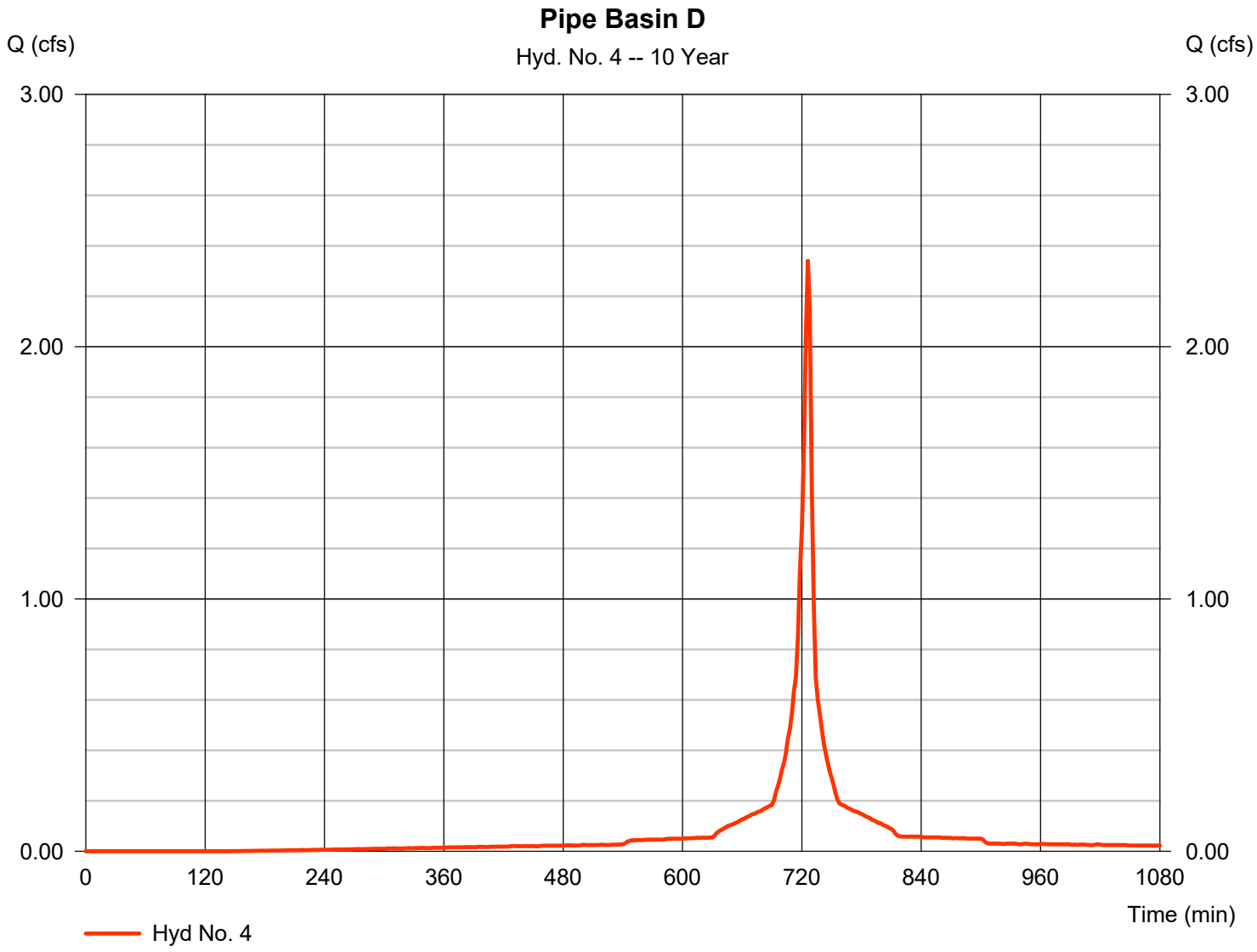
Hydrograph Report

Hyd. No. 4

Pipe Basin D

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.345 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	5,159 cuft
Drainage area	=	0.430 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(0.430 x 98)] / 0.430



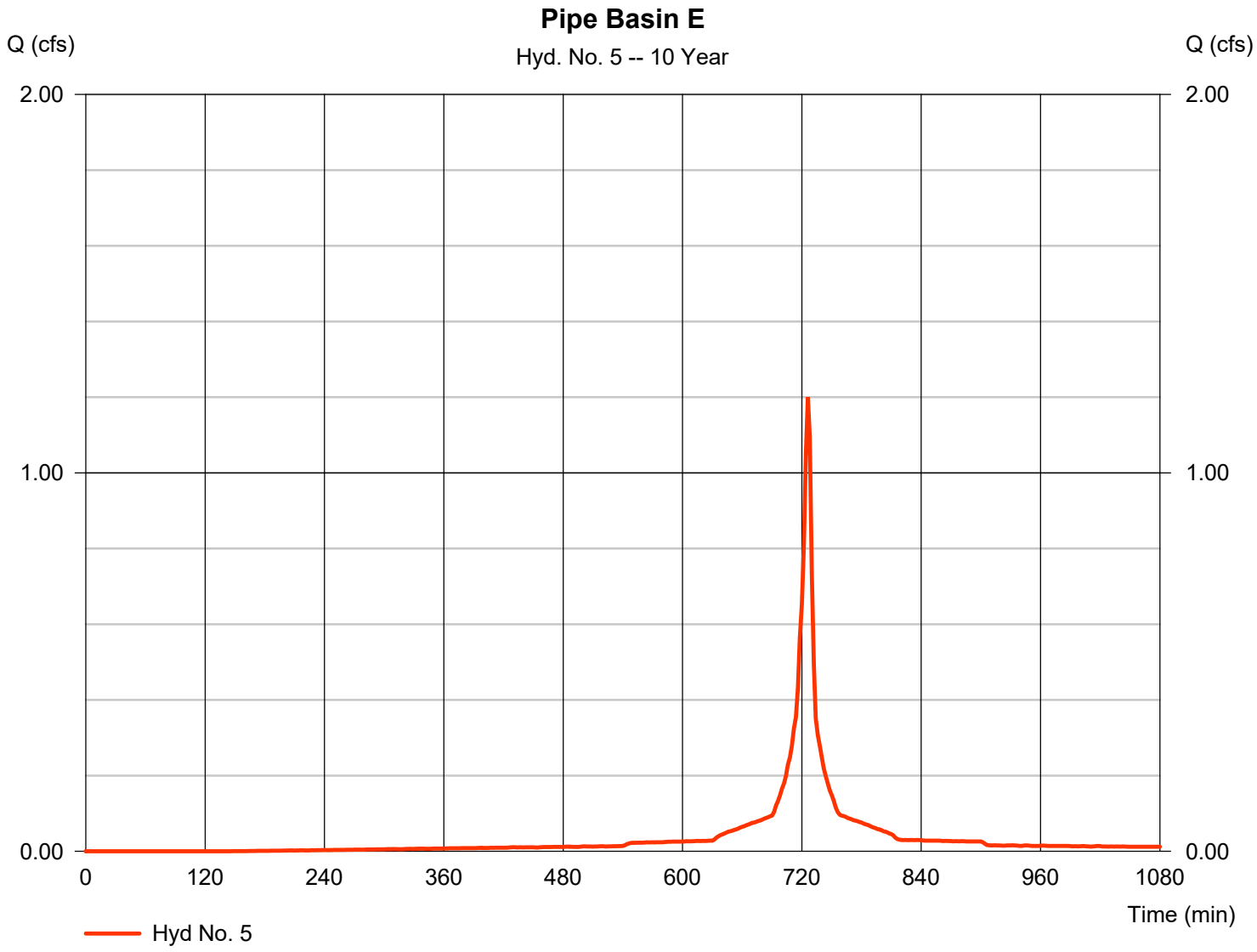
Hydrograph Report

Hyd. No. 5

Pipe Basin E

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.200 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	2,640 cuft
Drainage area	=	0.220 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.220 x 98)] / 0.220



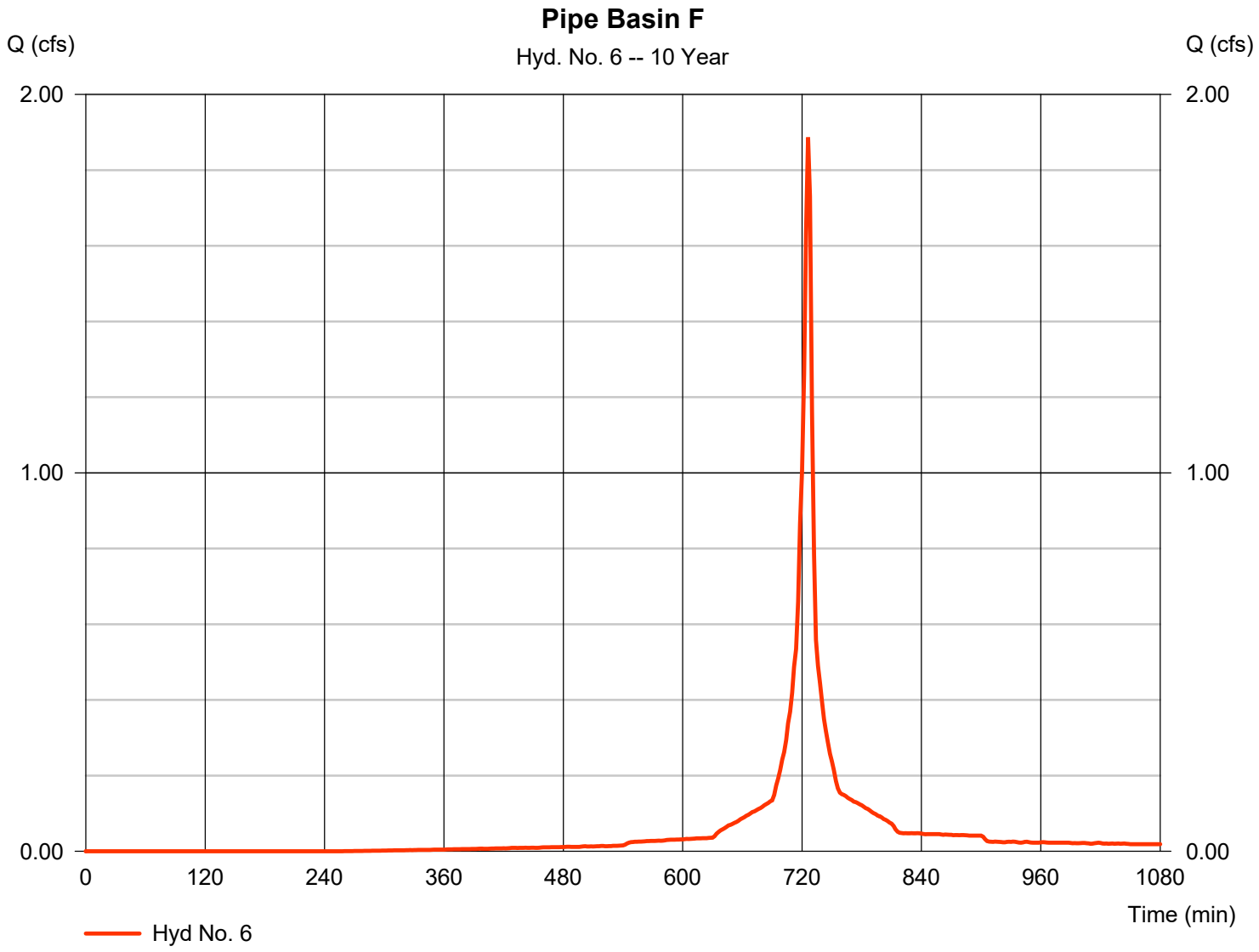
Hydrograph Report

Hyd. No. 6

Pipe Basin F

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.886 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	3,914 cuft
Drainage area	=	0.360 ac	Curve number	=	95*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.310 x 98) + (0.050 x 74)] / 0.360



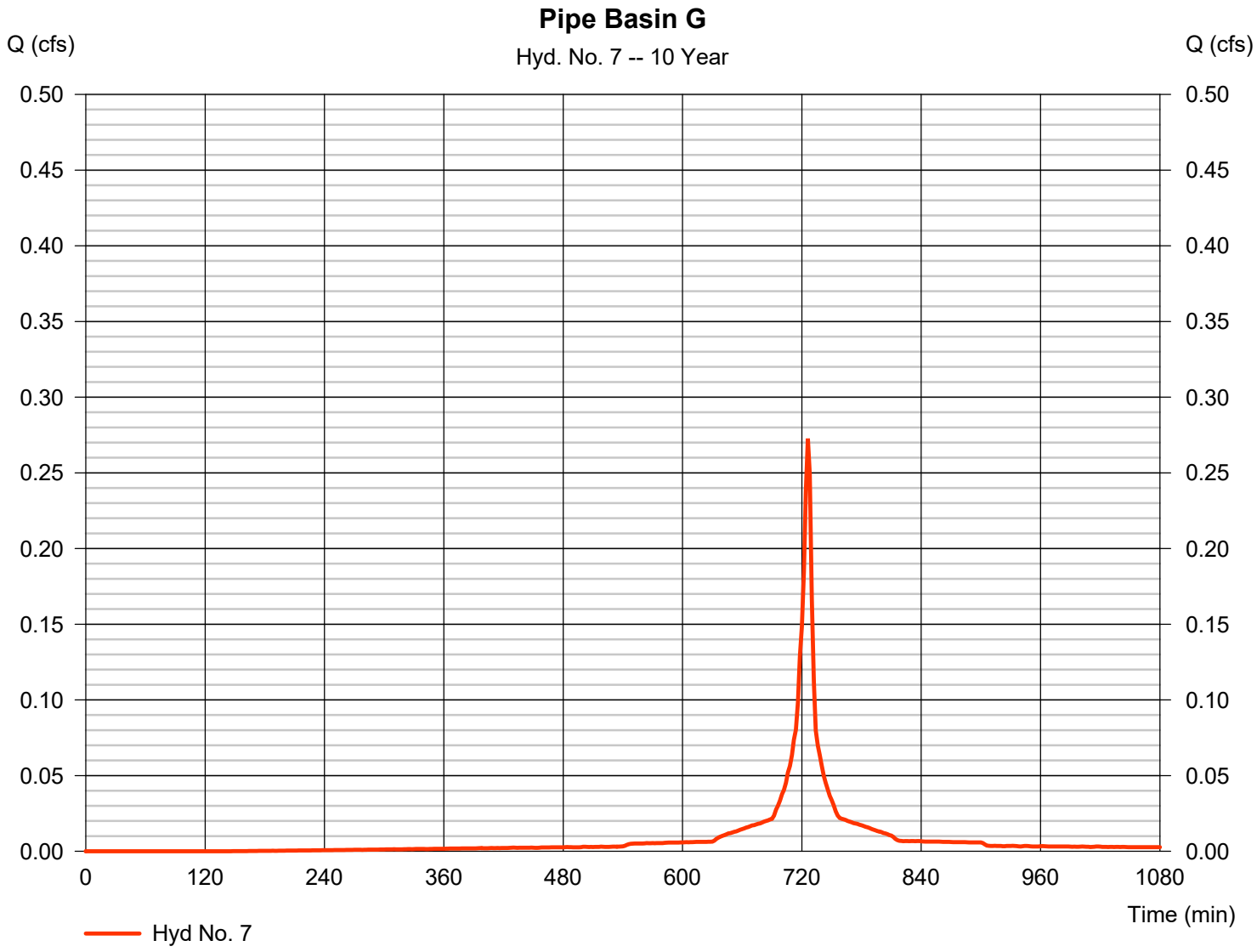
Hydrograph Report

Hyd. No. 7

Pipe Basin G

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.273 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	600 cuft
Drainage area	=	0.050 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.050 x 98)] / 0.050



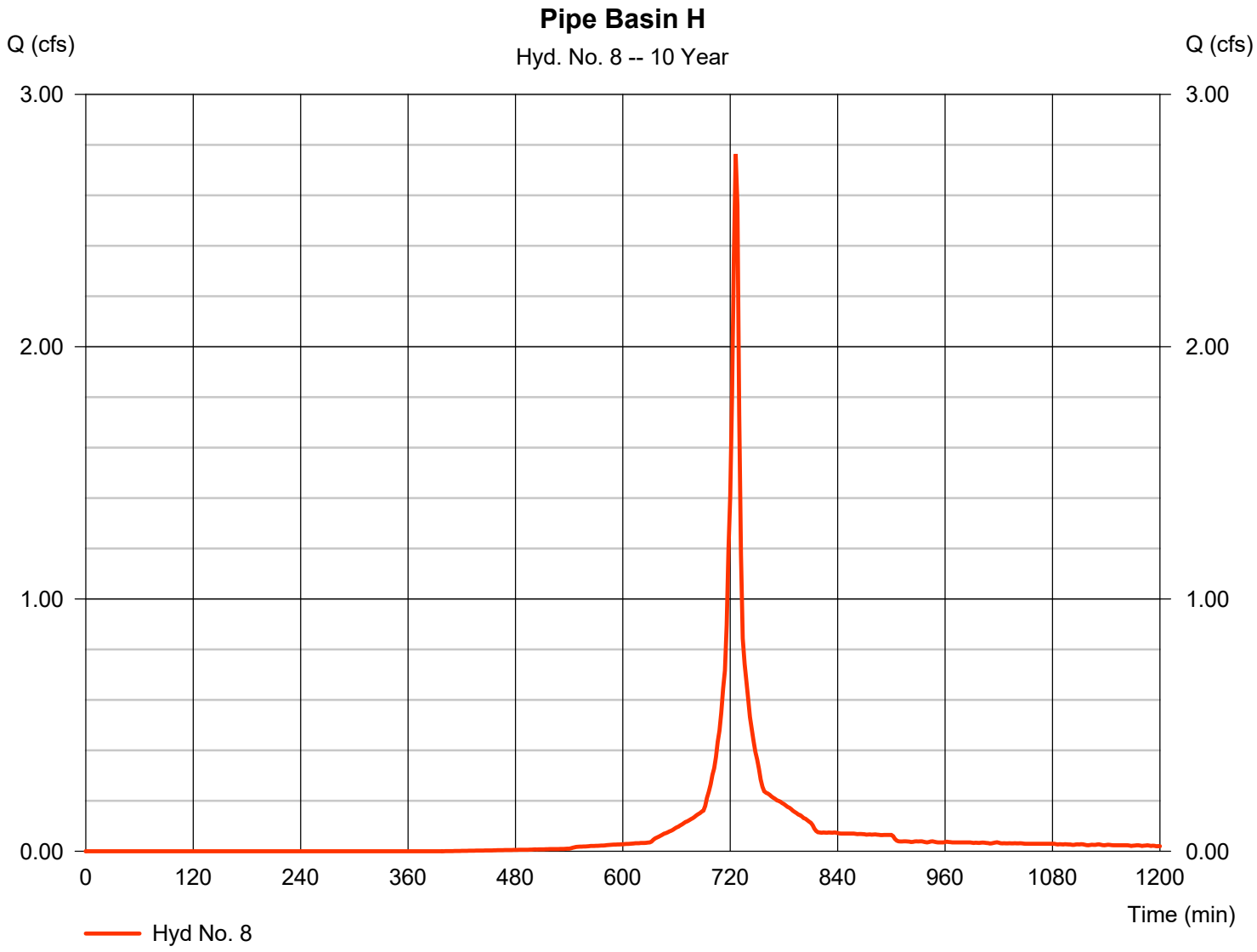
Hydrograph Report

Hyd. No. 8

Pipe Basin H

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.763 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	5,406 cuft
Drainage area	=	0.590 ac	Curve number	=	90*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.390 x 98) + (0.200 x 74)] / 0.590



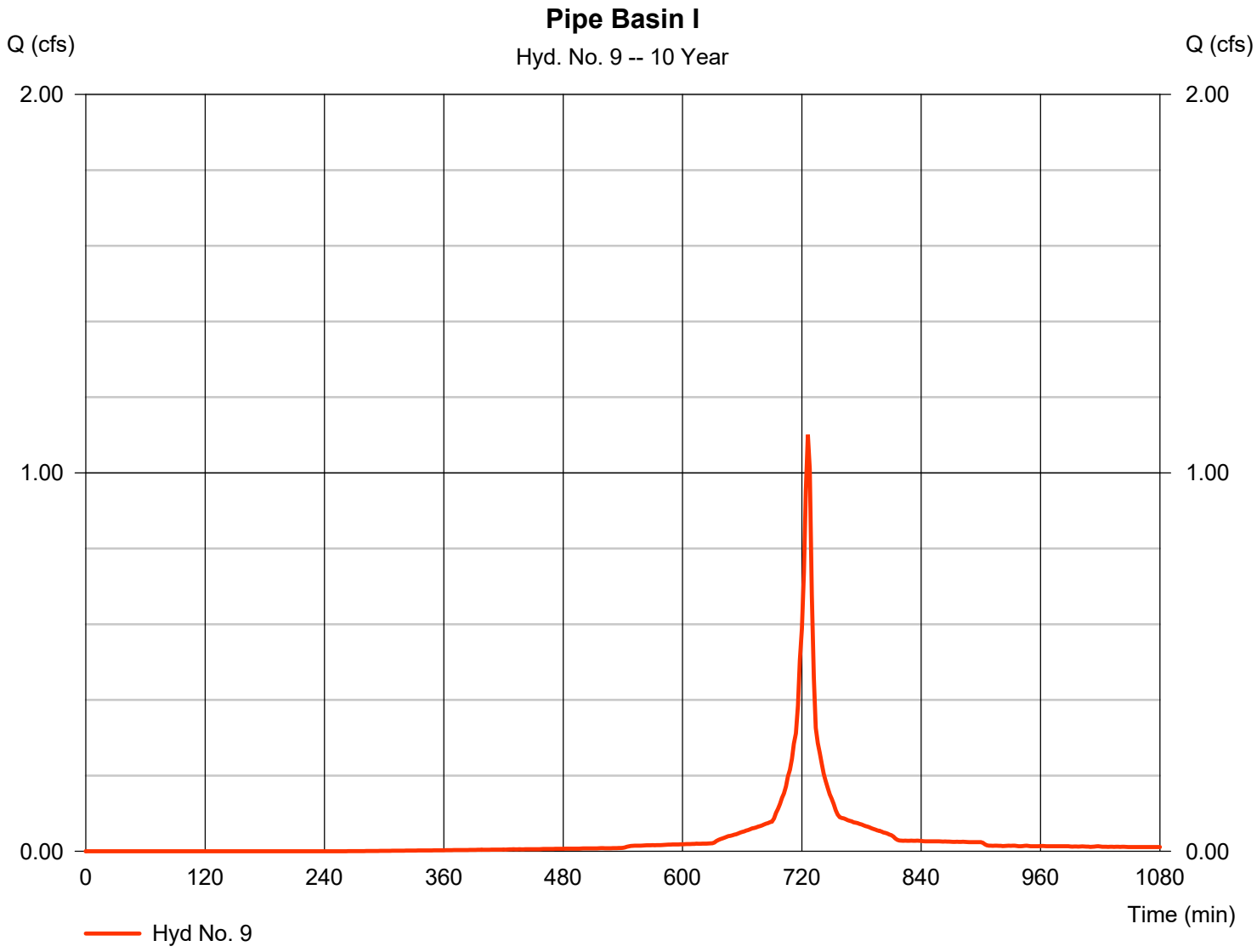
Hydrograph Report

Hyd. No. 9

Pipe Basin I

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.100 cfs
Storm frequency	=	10 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	2,283 cuft
Drainage area	=	0.210 ac	Curve number	=	95*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	3.76 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.180 x 98) + (0.030 x 74)] / 0.210



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	7.809	2	726	17,203	------	------	------	Pipe Basin A
2	SCS Runoff	2.814	2	726	6,302	------	------	------	Pipe Basin B
3	SCS Runoff	2.433	2	726	5,025	------	------	------	Pipe Basin C
4	SCS Runoff	3.667	2	726	8,212	------	------	------	Pipe Basin D
5	SCS Runoff	1.876	2	726	4,202	------	------	------	Pipe Basin E
6	SCS Runoff	3.013	2	726	6,447	------	------	------	Pipe Basin F
7	SCS Runoff	0.426	2	726	955	------	------	------	Pipe Basin G
8	SCS Runoff	4.658	2	726	9,437	------	------	------	Pipe Basin H
9	SCS Runoff	1.758	2	726	3,761	------	------	------	Pipe Basin I

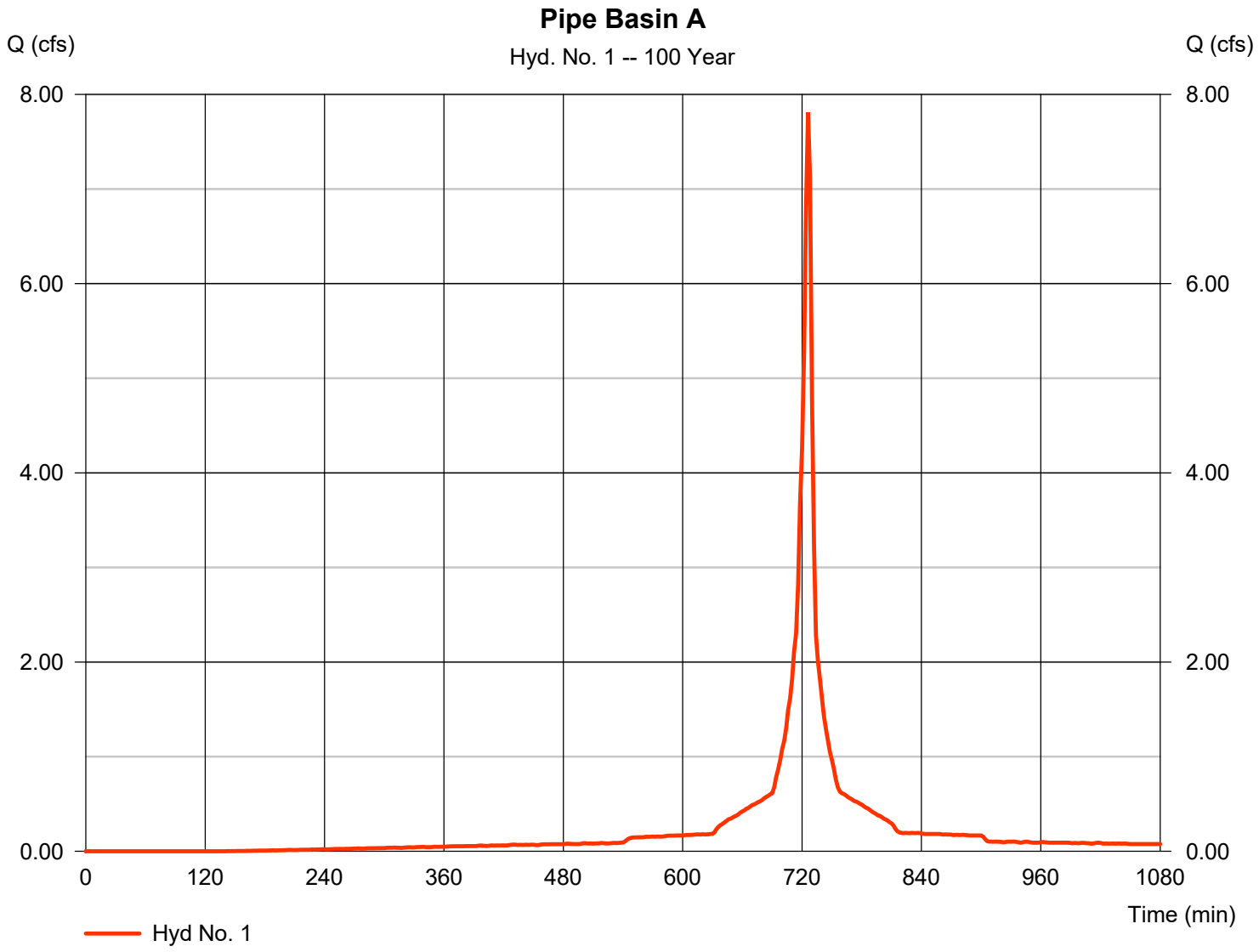
Hydrograph Report

Hyd. No. 1

Pipe Basin A

Hydrograph type	=	SCS Runoff	Peak discharge	=	7.809 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	17,203 cuft
Drainage area	=	0.920 ac	Curve number	=	97*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.880 x 98) + (0.040 x 74)] / 0.920



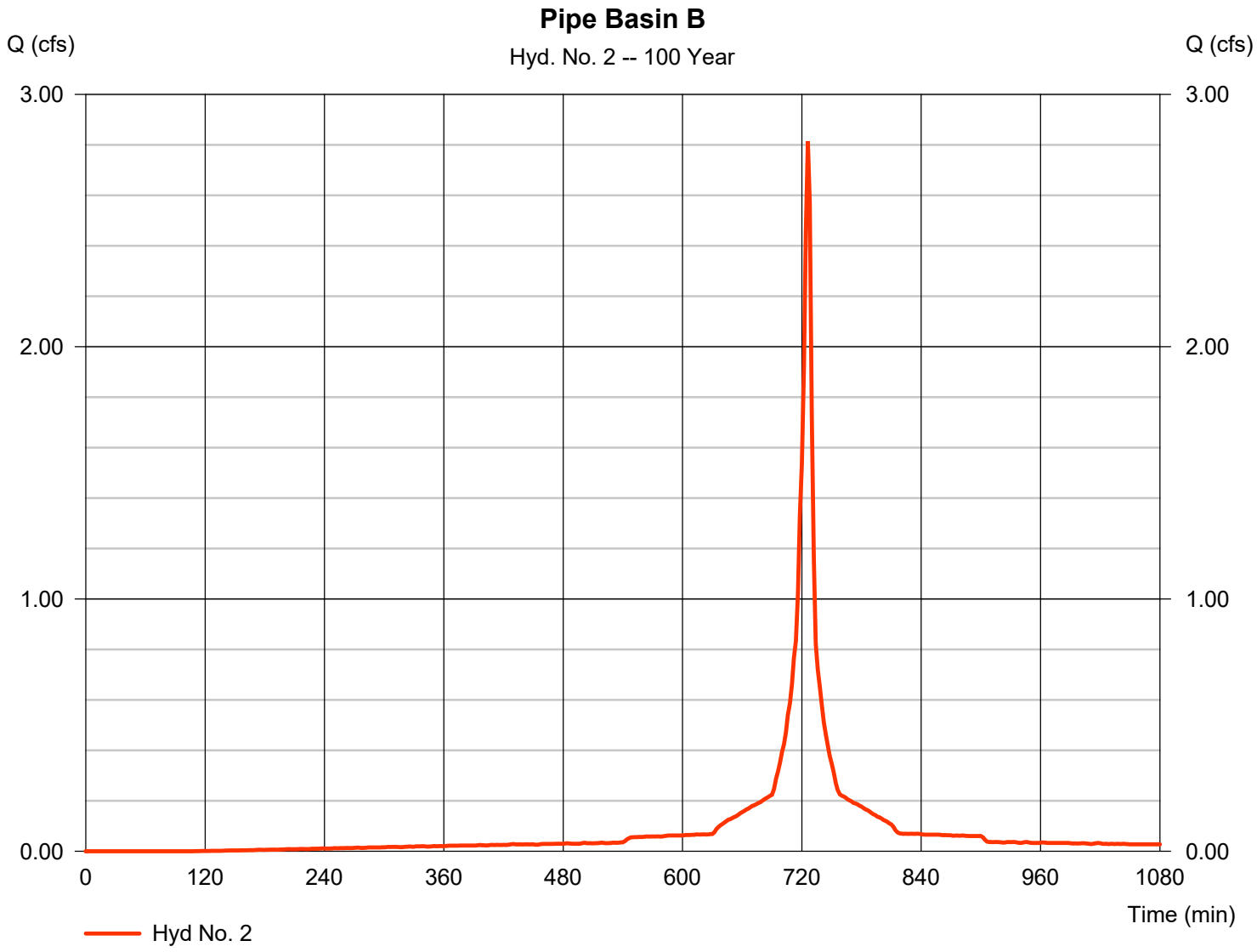
Hydrograph Report

Hyd. No. 2

Pipe Basin B

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.814 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	6,302 cuft
Drainage area	=	0.330 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.330 x 98)] / 0.330



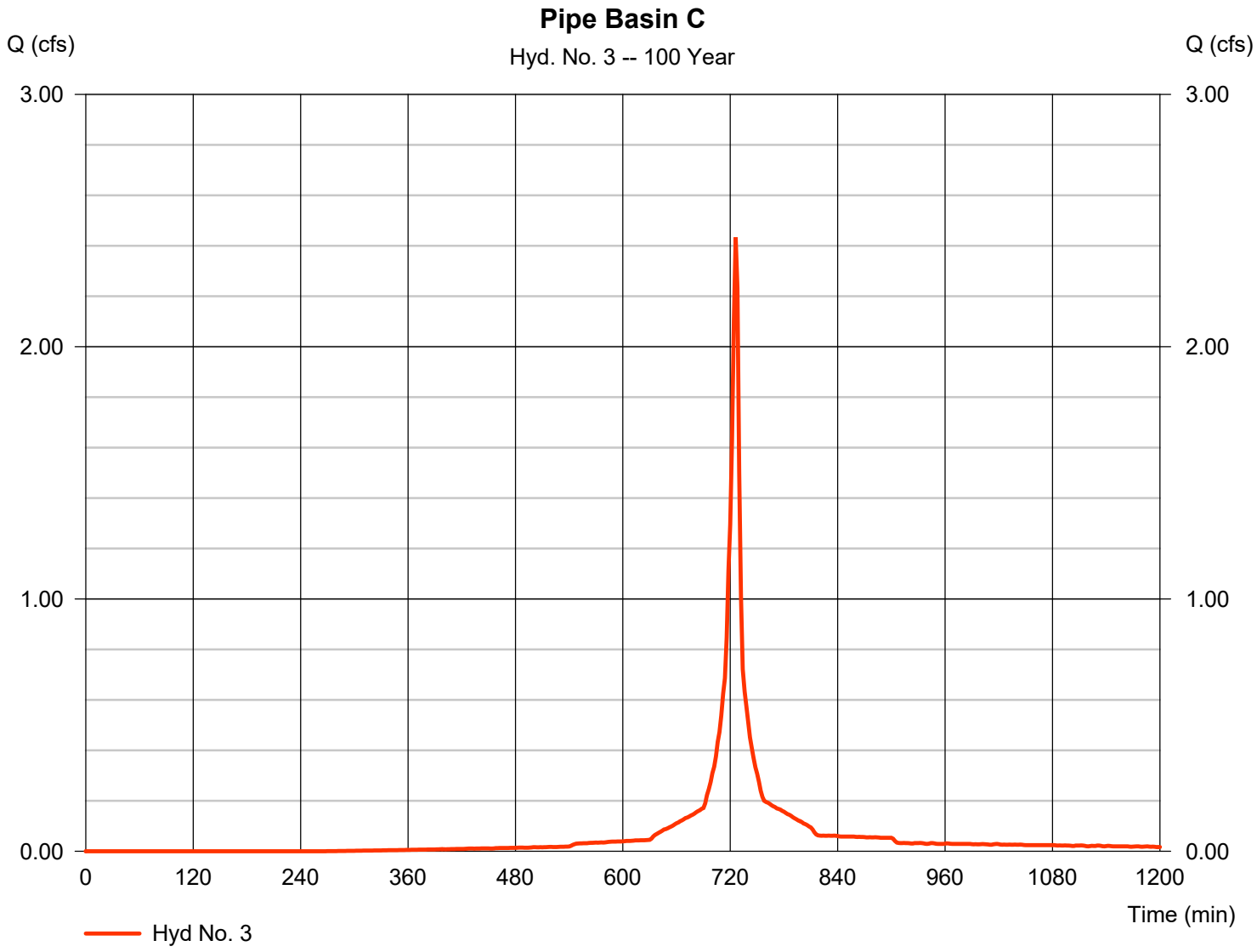
Hydrograph Report

Hyd. No. 3

Pipe Basin C

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.433 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	5,025 cuft
Drainage area	=	0.300 ac	Curve number	=	92*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.230 x 98) + (0.070 x 74)] / 0.300



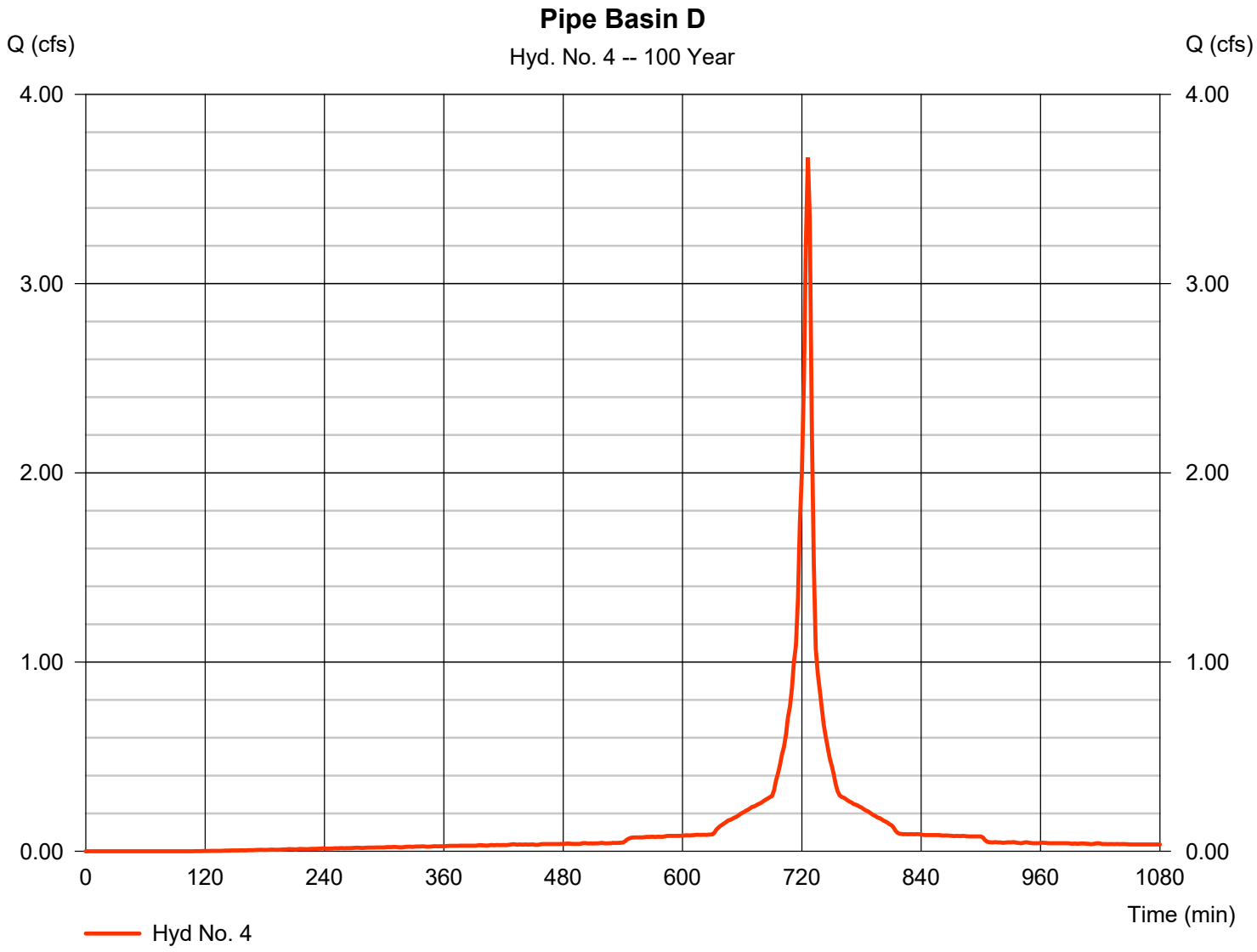
Hydrograph Report

Hyd. No. 4

Pipe Basin D

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.667 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	8,212 cuft
Drainage area	=	0.430 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = [(0.430 x 98)] / 0.430



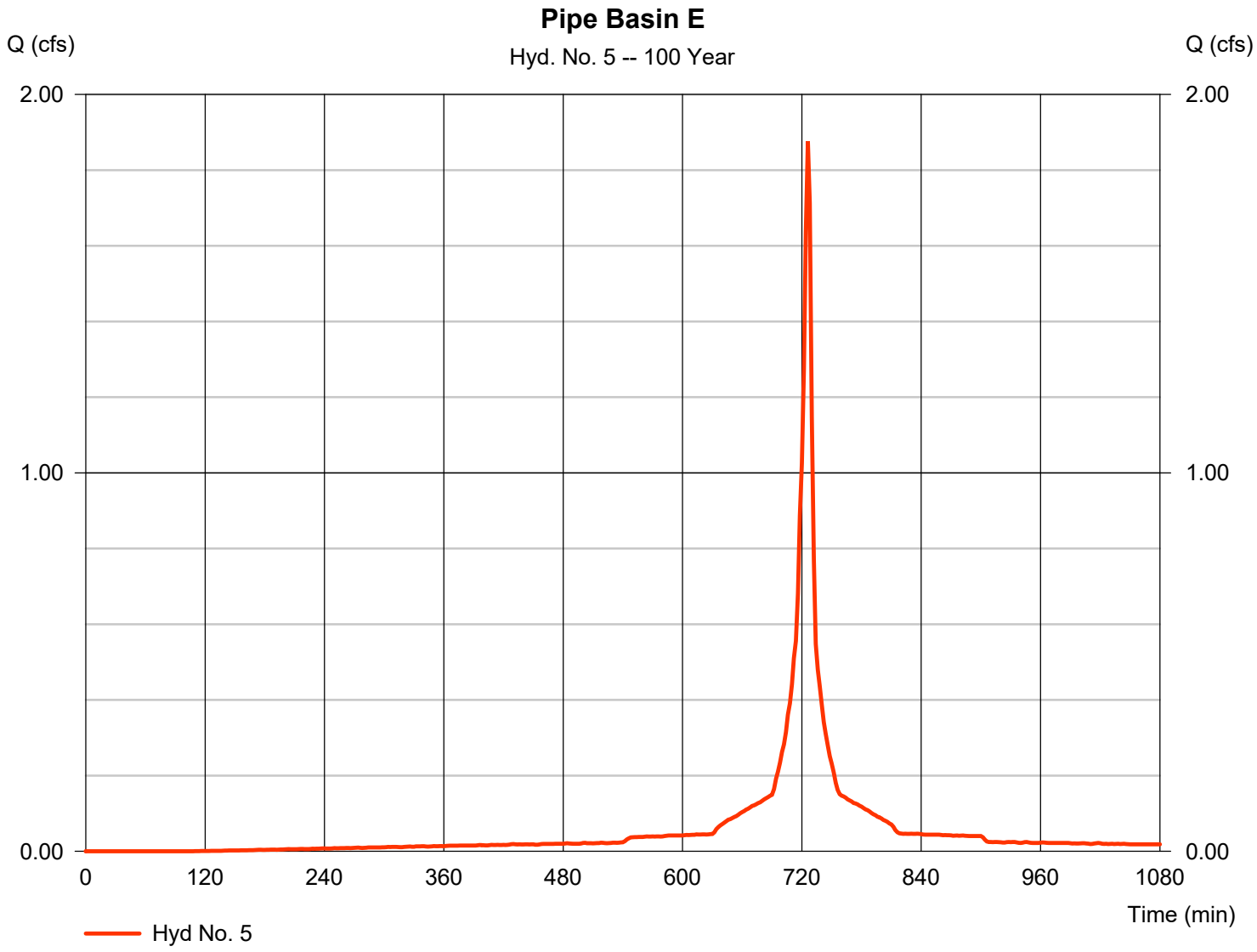
Hydrograph Report

Hyd. No. 5

Pipe Basin E

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.876 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	4,202 cuft
Drainage area	=	0.220 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Cir - Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.220 x 98)] / 0.220



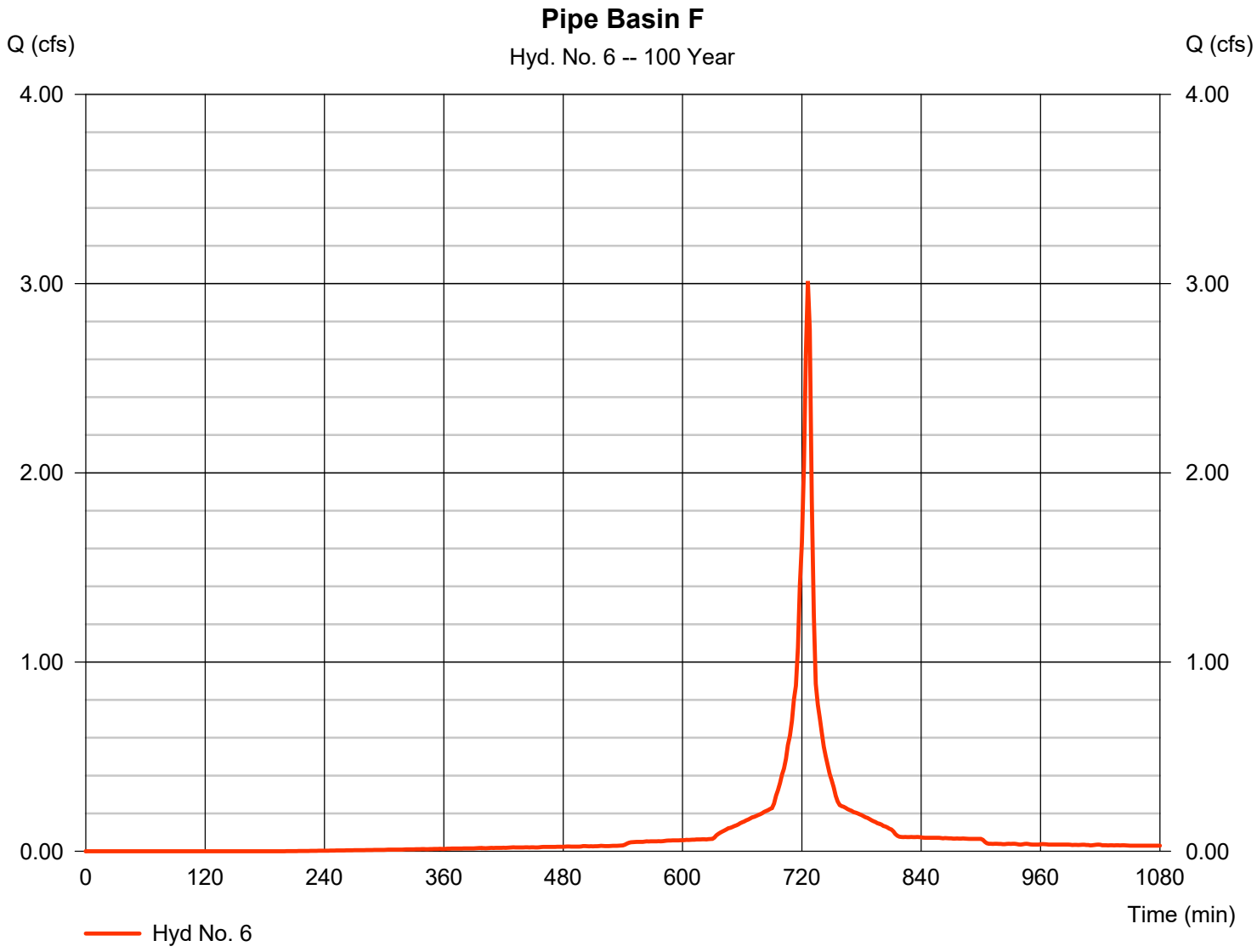
Hydrograph Report

Hyd. No. 6

Pipe Basin F

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.013 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	6,447 cuft
Drainage area	=	0.360 ac	Curve number	=	95*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.310 x 98) + (0.050 x 74)] / 0.360



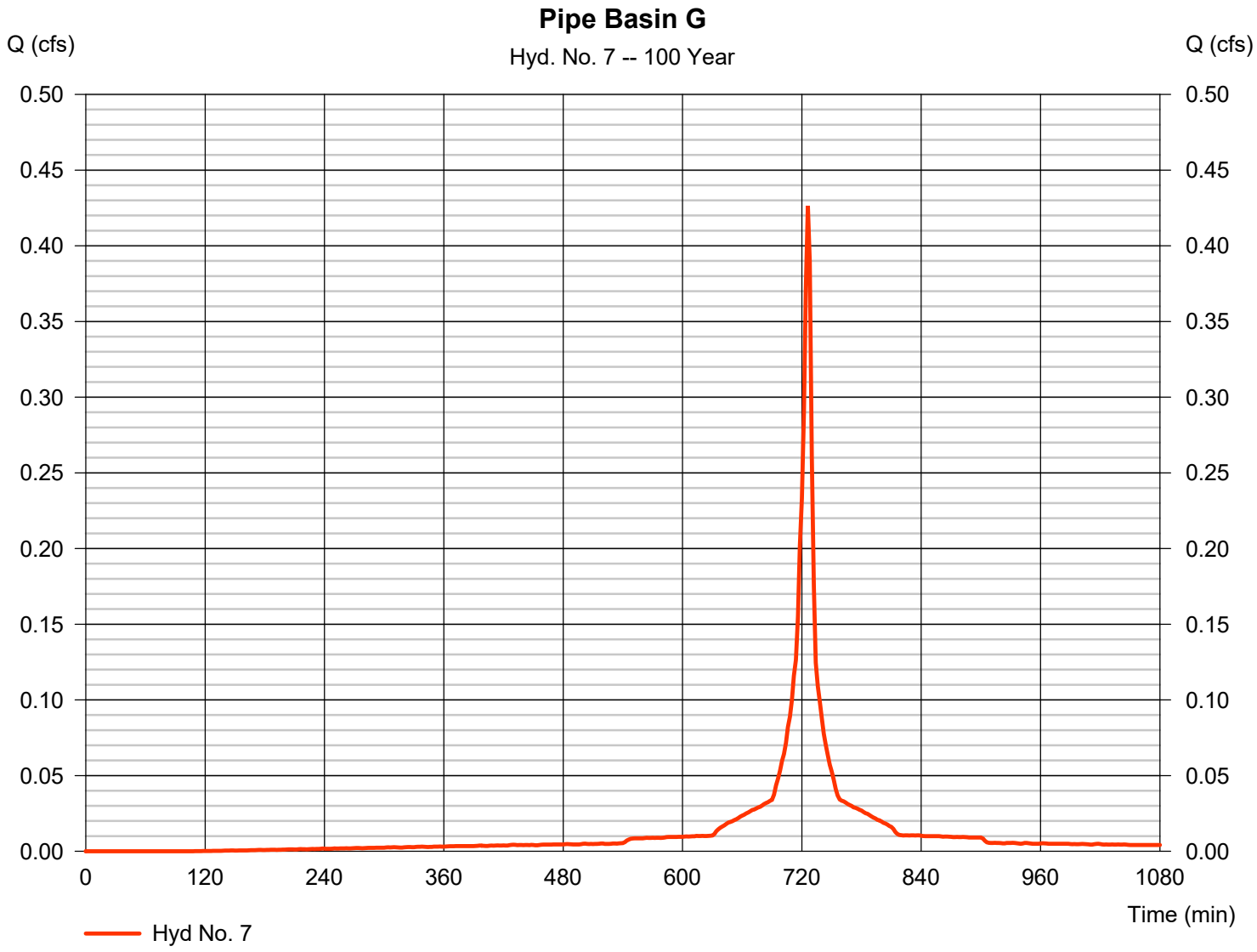
Hydrograph Report

Hyd. No. 7

Pipe Basin G

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.426 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	955 cuft
Drainage area	=	0.050 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.050 x 98)] / 0.050



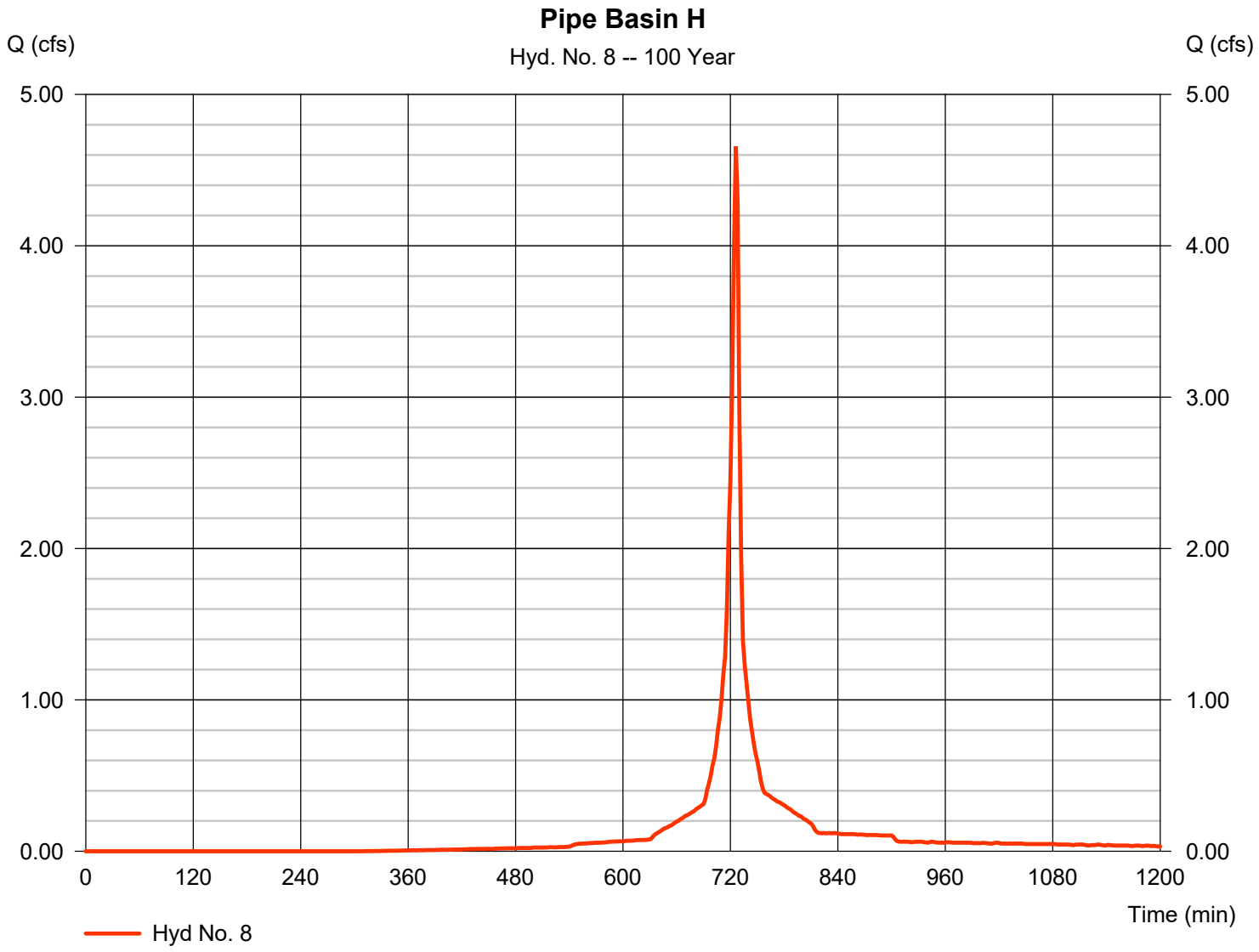
Hydrograph Report

Hyd. No. 8

Pipe Basin H

Hydrograph type	=	SCS Runoff	Peak discharge	=	4.658 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	9,437 cuft
Drainage area	=	0.590 ac	Curve number	=	90*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.390 x 98) + (0.200 x 74)] / 0.590



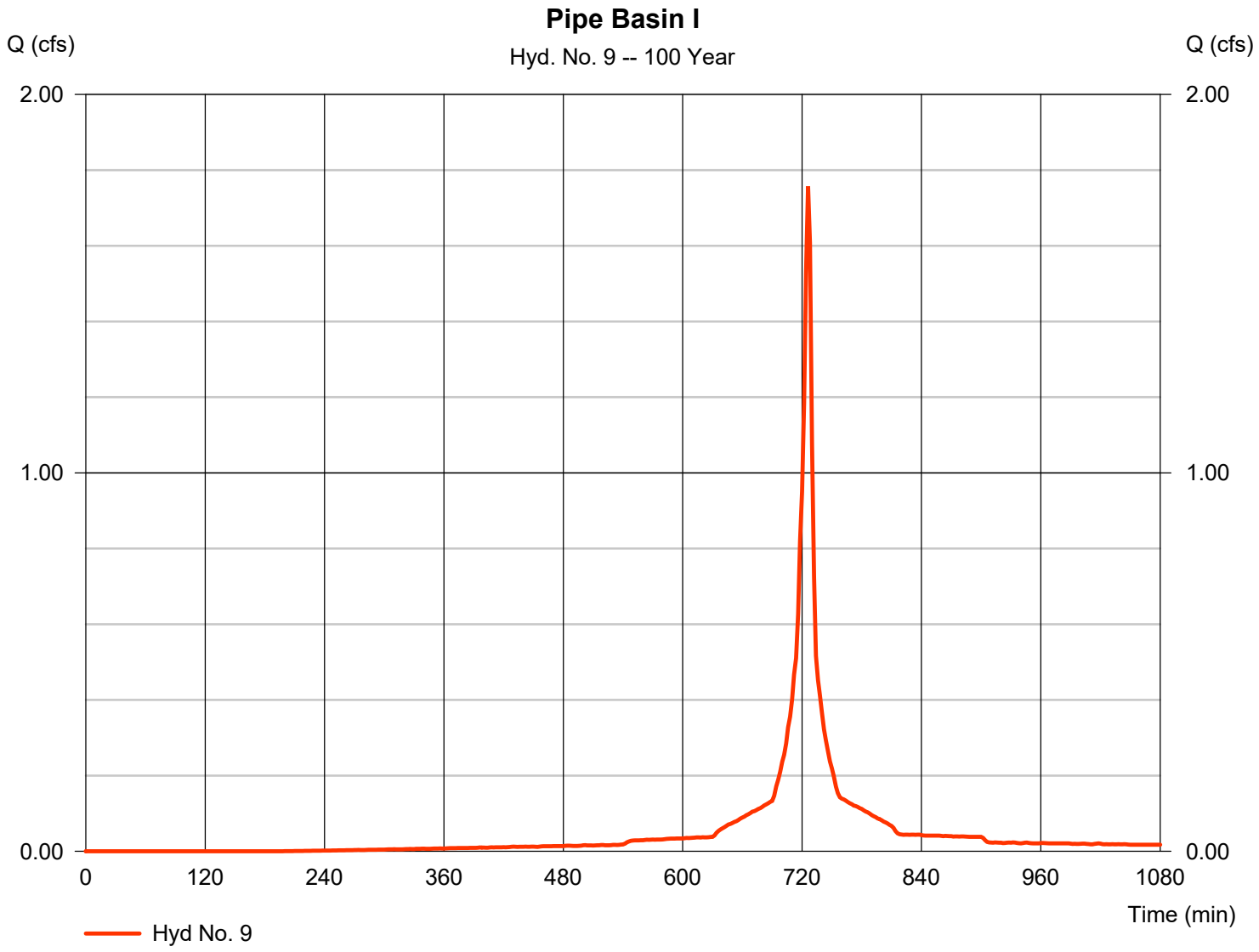
Hydrograph Report

Hyd. No. 9

Pipe Basin I

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.758 cfs
Storm frequency	=	100 yrs	Time to peak	=	726 min
Time interval	=	2 min	Hyd. volume	=	3,761 cuft
Drainage area	=	0.210 ac	Curve number	=	95*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	6.00 min
Total precip.	=	5.85 in	Distribution	=	Custom
Storm duration	=	F:\Job Files\2266000 Keller - Gilbert Ct-Somers Marketplace - Somers WI\2266	Shape factor	=	484

* Composite (Area/CN) = + (0.180 x 98) + (0.030 x 74)] / 0.210



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	--------
2	67.0175	12.8000	0.8569	--------
3	0.0000	0.0000	0.0000	--------
5	76.3148	14.3000	0.8285	--------
10	87.9879	15.5000	0.8272	--------
25	104.7368	16.7000	0.8265	--------
50	117.3990	17.4000	0.8248	--------
100	133.7316	18.3000	0.8296	--------

File name: SampleFHA.idf

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.68	4.60	3.88	3.37	2.98	2.68	2.44	2.24	2.07	1.93	1.81	1.70
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.57	5.43	4.65	4.08	3.64	3.30	3.02	2.79	2.59	2.42	2.28	2.15
10	7.23	6.04	5.21	4.59	4.12	3.74	3.43	3.17	2.95	2.77	2.60	2.46
25	8.23	6.94	6.02	5.33	4.80	4.37	4.02	3.72	3.47	3.25	3.07	2.90
50	9.04	7.65	6.67	5.92	5.34	4.87	4.48	4.16	3.88	3.64	3.43	3.25
100	9.81	8.35	7.30	6.50	5.87	5.36	4.94	4.59	4.28	4.02	3.79	3.59

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	2.38	2.69	0.00	3.32	3.76	4.50	5.35	5.85
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	2.38	2.69	0.00	3.32	3.76	0.00	5.35	5.85

Appendix H: Storm Sewer Manning's Spreadsheet

Excel Engineering Project No. 2266000 Project Name Golden Oil Somers Marketplace

Pipe Data					Pipe Capacity (10-yr, 24-hr)/100-yr without overflow				
Pipe ID	Diameter (FT)	Pipe Qty.	Slope (FT/FT)	Manning's n	Basin ID	Design Storm	Total Flow (cfs)	Total Flow (gpm)	Full Flow Capacity (cfs)
A	1.5	1	0.005	0.012	A	100	7.81	3,505	8.07
B	0.83	1	0.013	0.012	B	10	1.80	808	2.64
C	2	1	0.004	0.012	A,B,C	10 (100)	11.09	4,976	15.54
D	1	1	0.005	0.012	D	10	2.35	1,052	2.74
E	2	1	0.004	0.012	A,B,C,D,E	10 (100)	14.63	6,567	15.54
F	1	1	0.005	0.012	F	10	1.89	846	2.74
G	1	1	0.005	0.012	F,G	10	2.16	969	2.74
H	1.25	1	0.005	0.012	H	100	4.66	2,091	4.96
I	1.5	1	0.005	0.012	F,G,H,I	10 (100)	7.92	3,553	8.07
J	2.5	1	0.003	0.012	A,B,C,D,E,F,G,H,I	10 (100)	22.55	10,120	24.40

Full Flow Capacity based off Manning's Equation

$$Q = \frac{1.49}{n} R^{2/3} S^{1/2} a$$

Where:

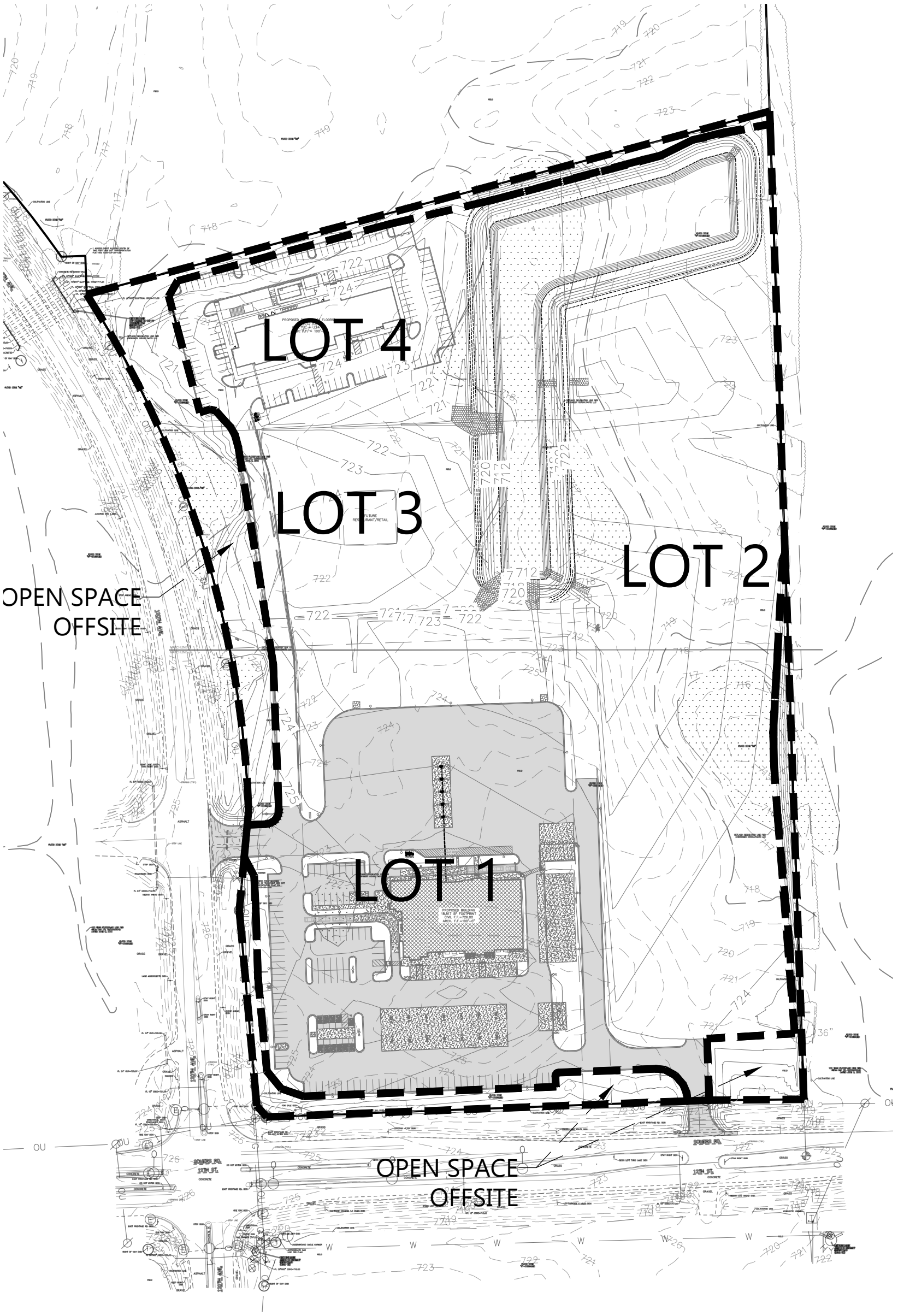
Q = Full Flow Capacity of Pipe (cfs)
n = manning's roughness coefficient
R = hydraulic radius (ft) (D/4)
s = hydraulic gradient, slope (ft/ft)
a = flow area (sq. ft.)

Typical Manning's n

HDPE	0.012
PVC	0.012
Concrete	0.013
CMP	0.024

*Total Flow calculated via TR-55 hydrologic calculations. Reference Storm Pipe Basin Map & TR-55 Calculations

Appendix I: SLAMM Basin Maps



LOT	TOTAL (SF)	TOTAL (AC)	* PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
1 *	367,174	8.43	312098	7.16	55076	1.26
2 *	372,632	8.55	316737	7.27	55895	1.28
3 *	142,206	3.26	120875	2.77	21331	0.49
4 *	206,997	4.75	175947	4.04	31050	0.71
TOTAL	1,089,009	25	925,658	21.25	163,351	3.75
CURVE NUMBER	0		98		74	

* 85% LOT COVERAGE ASSUMED

BASIN	TOTAL (SF)	TOTAL (AC)	* PAVEMENT (SF)	PAVEMENT (AC)	OPEN (SF)	OPEN (AC)
1,2,3,4 (TO POND) @ 85% LOT COV	966,988	22.20	925658	21.25	41330	0.95
OFFSITE	122,746	8.55	0	0.00	122746	2.82
CURVE NUMBER	0		98		74	

NORTH

WINSLAMM BASIN MAP

1"= 150'

150' 0 150' 300'

SCALE 1"=150' (11X17) FEET

Appendix J: SLAMM Input/ Output Information

Data file name: F:\Job Files\2266000 Keller - Golden Oil - Somers Marketplace - Somers WI\2266004 Civil\storm water report and calculations\2024 04 26 Initial Submittal\2266000-WinSLAMM Modeling.mdb
WinSLAMM Version 10.4.1
Rain file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WisReg - Milwaukee 1969.ran
Particulate Solids Concentration file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/29
Date: 04-22-2024 Time: 10:54:12
Site information:

LU# 1 - Commercial: Lots 1-4 Contributing Total area (ac): 22.200
13 - Paved Parking 1: 21.250 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.950 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Commercial: Open Space Offsite Total area (ac): 2.820
45 - Large Landscaped Areas 1: 2.820 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Wet Detention Pond CP# 1 (DS) - DS Wet Pond # 1
Particle Size Distribution file name: Not needed - calculated by program
Initial stage elevation (ft): 6
Peak to Average Flow Ratio: 3.8
Maximum flow allowed into pond (cfs): No maximum value entered
Outlet Characteristics:
Outlet type: Orifice 1
1. Orifice diameter (ft): 0.42
2. Number of orifices: 1
3. Invert elevation above datum (ft): 6
Outlet type: Broad Crested Weir

1. Weir crest length (ft): 20
2. Weir crest width (ft): 20
3. Height from datum to bottom of weir opening: 9.5

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 4
2. Stand pipe height above datum (ft): 9

Pond stage and surface area

Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)	Other Outflow (cfs)
0	0.00	0.0000	0.00	0.00
1	0.01	1.1820	0.00	0.00
2	1.00	1.2600	0.00	0.00
3	2.00	1.3370	0.00	0.00
4	3.00	1.4160	0.00	0.00
5	4.00	1.4950	0.00	0.00
6	5.00	1.5740	0.00	0.00
7	5.50	1.6140	0.00	0.00
8	6.00	2.0220	0.00	0.00
9	7.00	2.1930	0.00	0.00
10	8.00	2.4170	0.00	0.00
11	9.00	2.6970	0.00	0.00
12	10.00	2.7190	0.00	0.00
13	10.50	2.7550	0.00	0.00

SLAMM for Windows Version 10.4.1
(c) Copyright Robert Pitt and John Voorhees 2019, All Rights Reserved

Data file name: F:\Job Files\2266000 Keller - Golden Oil - Somers Marketplace - Somers WI\2266004 Civil\storm water report and calculations\2024 04 26 Initial Submittal\2266000-WinSLAMM Modeling.mdb
Data file description:
Rain file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WisReg - Milwaukee 1969.ran
Particulate Solids Concentration file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_GEO03.ppdx
Residential Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: J:\Programs\civil\WinSLAMM\v10.4.1\Parameter Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Start of Winter Season: 12/06 End of Winter Season: 03/29
Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69
Date of run: 04-22-2024 Time of run: 10:54:03
Total Area Modeled (acres): 25.020
Years in Model Run: 0.99

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Solids Reduction
Total of all Land Uses without Controls:	1.650E+06	-	131.2	13507	-
Outfall Total with Controls:	1.651E+06	-0.06%	8.978	925.5	93.15%
Annualized Total After Outfall Controls:	1.674E+06			938.4	

Appendix K: USLE Calculations

Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.0 (06-29-2017)

WISCONSIN DEPT. OF NATURAL RESOURCES

YEAR 1

Developer: Golden Oil

Project: Somers Marketplace

Date: 04/22/24

County: Kenosha

Version 1.0

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	12/01/24	04/01/25	5.1%	140	Silty Clay	0.28	1.0%	402	0.20	1.00	0.4	0.611	Sediment Basin	0.0
Seed with Mulch or Er	04/01/25	08/01/25	59.5%	140	Silty Clay	0.28	1.0%	402	0.20	0.10	0.5	0.611	Sediment Basin	0.1
Seed with Mulch or Er	08/01/25	11/30/25	35.4%	140	Silty Clay	0.28	1.0%	402	0.20	0.10	0.3	0.611	Sediment Basin	0.0
End	11/30/25	-----	-----	-----	-------	-----	1.0%	402	0.20	------	-----	0.000		0.0
		-----	-----	-----	-------	-----	1.0%	0	-----	-----	-----	0.000		0.0
		-----	-----	-----	-------	-----	0.0%	0	-----	-----	-----	0.000		0.0
										TOTAL	**1.1**		**TOTAL**	**0.1**
													% Reduction Required	**NONE**

Notes:

See Help Page for further descriptions of variables and items in drop-down boxes.
The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.
For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Recommended Permanent Seeding Dates:

4/1-5/15	and	8/7-8/29	Turf, introduced grasses and legumes
Thaw-6/30			Native Grasses, forbs, and legumes

Designed By:	Excel
Date	4/26/2024

Appendix L: Assured Wetland Delineation Report & Corps AJD Determination

PO Box 680 • Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Golden Oil- Somers Marketplace

Professionally Assured Wetland Delineation Report

Project Number: KEN22-016-01
Property Address: 12th Street, Village of Somers, Kenosha County, Wisconsin
Parcel ID: Part of 82-4-222-073-0102

September 9, 2022

Report Request by

EXCEL ENGINEERING
Always a better plan

100 Camelot Drive
Fond du Lac, Wisconsin 54935

evergreen consultants LLC
PO Box 680 • Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Field Work Certification:

Chad M Fradette, EP, Chemist, Wetland Scientist
Wisconsin DNR Professional Assured Wetland Delineator
Lead Wetland Delineator
(920) 615-0019 *chad@evergreenwis.com*

Shyann P Banker, Environmental Specialist
(920) 915-2629 *shyann@evergreenwis.com*

Table of Contents

Introduction 1

Methodology 3

Results 4

Off Site Analysis 4

Field Investigation 6

Conclusion 8

Wetlands 8

Exemptions 9

Protective Areas 10

Concurrence and Certification 11

References 12

Appendices

Appendix A – Figures and Site Maps
Appendix B – Site Photographs
Appendix C – Original Survey, Notes and Bordner Survey
Appendix D – Historic Aerial Photographs and Hydrology Assessment
Appendix E – NRCS County Soil Survey Report
Appendix F – Precipitation Information
Appendix G – Wetland Determination Data Sheets

Introduction

Evergreen was retained by Excel Engineering to perform a professionally assured wetland delineation. The property is located on 12th Street, Village of Somers, Wisconsin. The study area is approximately 26.9 acres in size and is in part of the East ½ of the Southwest ¼ of Section 7, Township 2 North, Range 22 East, Village of Somers, Kenosha County, Wisconsin. Site Maps can be found in Appendix A.

The wetland delineation was conducted on September 9, 2022, by Chad Fradette, a Wisconsin Department of Natural Resources (WDNR) Professionally Assured Wetland Delineator. The delineation was conducted for development planning for purposes. No recent disturbances were observed, and the study area was considered to have abnormal circumstances due to being a cropped field.

The WDNR Wisconsin Wetland Inventory (WWI) Map was reviewed and indicates the presence of emergent wetlands in the northwest corner and in the east half of the study area. The WWI wetland indicator soils layer was also reviewed and indicates the presence of indicator soils throughout most of the study area. The study area is mapped as having Predominantly Nonhydric and Predominantly Hydric soils within the study area. Indicator soils are soils which are commonly found in wetlands or have inclusions of soils that are commonly found in wetlands. The WDNR Surface Water Data Viewer (SWDV) was also reviewed and does not indicate the presence of any waterways within but an Order 2, Kilbourn Road Ditch stream to the east of the study area.

Four (4) wetlands were delineated during the site visit. The Wetland Data Sheets classify the wetland according to the Cowarden *Classification of Wetlands and Deepwater Habitats of the United States* (U.S. Fish and Wildlife Service, 1979) classification system.

Wetland ID	Wetland Description	Cowardin Classification	*Surface Water Connections	*NR151 Protective Area	Acreage On-site
Wetland 1	Degraded Wet Meadow infested with reed canary grass and cattail and a cottonwood swamp within a depression connected to an excavate ditch	PFO1/EM1Bx	Connected to Water of the US	Less susceptible, 10-30 feet	31,976 sf 0.734 acres
Wetland 2	Wet Meadow within a closed depression in a cropped field	PEM1Bf	No connection to surface water	Less susceptible, 10-30 feet	82,832 sf 1.902 acres
Wetland 3	Wet Meadow within a closed depression in a cropped field	PEM1Bf	No connection to surface water	Less susceptible, 10-30 feet	4,698 sf 0.108 acres
Wetland 4	Wet Meadow within a depression in a fallow weedy area of a cropped field	PEM1Bf	No connection to surface water	Less susceptible, 10-30 feet	27,409 sf 0.629 acres

**These are based on professional opinion. Local zoning ordinances may have additional restrictions. US Army Corps of Engineers has authority for determining federal jurisdiction of wetlands and waterways.*	**3.373 ac**

An antecedent precipitation evaluation was conducted for the three months prior to the site visit. Precipitation data from the Union Grove, WI WETS station indicates climatic conditions were normal at the time of the site visit. The Palmer Drought Index also indicates conditions were normal (Mid-Range, -1.99 to +1.99) for this location at the time of the site visit. Based on evaluation of both sources of data, it was determined climatic conditions were normal at the time of the site visit. The antecedent precipitation evaluation, WETS data and Palmer Drought Index reports for the area at the time of the site visit are included in Appendix F.

Wetland boundaries were identified using procedures outlined in the 1987 Corps of Engineering Wetland Delineation Manual and Midwest Regional Supplement. The areas identified as wetland were identified based on transitions from wetland to upland vegetation, hydrology indicators and hydric soil indicators, or lack thereof, in wetland areas versus upland areas, topographical position and best professional judgment. See Appendix A for the Wetland Determination Map. Wetland data sheets are included in Appendix G.

Personnel

Mr. Fradette is an Environmental Professional, Analytical Chemist, WDNR Professionally Assured Wetland Delineator and has over nineteen years of experience conducting wetland delineations. Mr. Fradette biannually attends Advanced Wetland Delineation Training course and has completed Grasses/Sedges/Rushes course sponsored by UW-La Crosse Continuing Education/Extension. Mr. Fradette has also completed the Advanced Hydric Soils and Problematic Wetland Delineation courses conducted by the Wetland Training Institute and the Advanced Wetland Plant ID: Grasses/Sedges/Rushes and Aerial Photo Review courses conducted by the USACE and the University of Minnesota Wetland Delineator Certification Program.

Mrs. Shyann Banker, Environmental Specialist has six years of experience conducting wetland delineations. Mrs. Banker has completed the Basic and Advanced Wetland Delineation Training and Basic Plant Identification for Wetlands courses sponsored by UW-La Crosse Continuing Education/Extension.

Methodology

Available topographic maps, survey maps, WWI and NWI maps, County Soil Survey maps, wetland indicator and hydric soil maps and all available aerial photos were reviewed prior to visiting the property to identify potential wetland areas. These figures are included in Appendix A.

Antecedent precipitation information was evaluated through use of available local WETS data for the three months prior to the delineation to determine if conditions were within normal, wetter than normal or drier than normal at the time of the site visit. The Antecedent Precipitation Evaluation, WETS Data and the Palmer Drought Index reports are included in Appendix F.

Aerial images on cultivated or previously cultivated sites were reviewed for wet signatures following the Minnesota Board of Water and Soil Resources (BWSR) and St Paul District Corps of Engineers *Guidance for Offsite Hydrology/Wetland Determinations, 2016.*

Examination of vegetation, soils, and hydrology, as outlined in the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Midwest Regional Supplement, were used to characterize, and determine wetland boundaries. The Natural Resources Conservation Service (NRCS) Field Indicators of Hydric Soils in the United States Guide was also utilized to help identify hydric soils at the site. All available information including transitions in vegetation, soils and hydrology, review of aerial photos, antecedent precipitation analysis, topographic position, along with best professional judgment was applied.

Sample transects were established in a representative wetland to upland transition zone. The transects were comprised of two or more sample points located along a line running perpendicular to the wetland edge, with at least one point in obvious wetland and one point in obvious upland. A field data form was completed for each of the upland and wetland sample points. The sample locations were also located with a GPS and are indicated on Wetland Delineation Map within Appendix A. Field data forms are included in Appendix G.

Wetland classification was performed according to Cowardin Classification of Wetlands and Deepwater Habitats of the United States (U.S. Fish and Wildlife Service, 1979) systems. Vegetation was identified using suitable keys (Eggers and Reed, 2014; Chadde, 1998) and a plant's hydrophytic status was determined using the most recent Midwest Region – National Wetland Plant List (U.S. Army Corps of Engineers, 2020). Wetland boundaries were determined based on the comprehensive wetland delineation method as defined in the *Corps of Engineers Wetlands Delineation Manual* (USACE, Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1) and the *Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual:* Midwest *Regions* (Midwest Regional Supplement) (USACE ERDC, 2012).

Mapping

The Wetland boundaries and Wetland edges were flagged with pink "Wetland Delineation" flags and/or ribbon. Boundary and sample plot locations were located with a Leica Zeno GG04 Global Positioning System (GPS) with sub-foot accuracy and are shown on the Wetland Delineation Map, located in Appendix A, Site Maps.

Results

Off Site Analysis

Land Use

Aerial photographs from 1937 through 2021 were reviewed. The site has been cropped throughout its history.

A hydrology assessment was completed as the Site is cropped. Nine areas were reviewed for hydrology indicators. Seven areas were required to be reviewed in the field based on the assessment. Each of the seven areas displayed from one to three hydrology indicators. All seven areas were determined to be wetland. The complete review of the Historic Aerial Photographs and Hydrology Assessment is in Appendix D.

Original Land and Bordner Surveys

The Original Survey shows the Site in the Southwest ¼ of Section 7. The Original Survey Notes describe the vegetation in this area as tamarack and black ash.

The Bordner Survey shows the Site as cleared cropland. The Original Survey, Survey Notes and Bordner Survey are in Appendix C.

Topography

The topography at the Site ranges from an elevation of 727 feet down to 715 feet. The topography of the Site slopes down towards the northwest corner and towards the middle of the east site boundary. The Topographic Map is in Appendix A.

Precipitation

An antecedent precipitation evaluation was conducted for the three months prior to the site visit. Precipitation data from the Union Grove, WI WETS station indicates climatic conditions were normal at the time of the site visit. The Palmer Drought Index also indicates conditions were normal (Mid-Range, -1.99 to +1.99) for this location at the time of the site visit. Based on evaluation of both sources of data, it was determined climatic conditions were normal at the time of the site visit. The antecedent precipitation evaluation, WETS data and Palmer Drought Index reports for the area at the time of the site visit are included in Appendix F.

Wetland Mapping

The WDNR Wisconsin Wetland Inventory (WWI) Map was reviewed and indicates the presence of emergent wetlands in the northwest corner and in the east half of the study area. The WWI wetland indicator soils layer was also reviewed and indicates the presence of indicator soils throughout most of the study area. The study area is mapped as having Predominantly Nonhydric and Predominantly Hydric soils within the study area. Indicator soils are soils which are commonly found in wetlands or have inclusions of soils that are commonly found in wetlands. The WDNR Surface Water Data Viewer (SWDV) was also reviewed and does not indicate the presence of any waterways within but an Order 2, Kilbourn

Road Ditch stream to the east of the study area.

The NWI Map was reviewed and indicates the presence of three Palustrine, Unconsolidated Shore, Seasonally Flooded (PUSC) wetland communities in the study area. The WWI, SWDV, and NWI Maps are in Appendix A.

Mapped Soils

The NRCS Web Soil Survey and the Soil Survey of Kenosha County, Wisconsin, indicate the presence of the following soil types:

Report—Hydric Rating by Map Unit (WI)

Hydric Rating by Map Unit (WI)–Kenosha and Racine Counties, Wisconsin				
Map Unit Symbol	Map Unit Name	Hydric Percent of Map Unit	Hydric Category	Landform Hydric Minor Components
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	97	WI Predominantly Hydric	Depressions
EtA	Elliott silt loam, 0 to 2 percent slopes	4	WI Predominantly Nonhydric	Till plains
MeB	Markham silt loam, 2 to 6 percent slopes	10	WI Predominantly Nonhydric	End moraines
MeB2	Markham silt loam, 2 to 6 percent slopes, eroded	10	WI Predominantly Nonhydric	End moraines
OzaB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	6	WI Predominantly Nonhydric	End moraines

Report—Taxonomic Classification of the Soils

[An asterisk by the soil name indicates a taxadjunct to the series]

Taxonomic Classification of the Soils–Kenosha and Racine Counties, Wisconsin	
Soil name	Family or higher taxonomic classification
Ashkum	Fine, mixed, superactive, mesic Typic Endoaquolls
Elliott	Fine, illitic, mesic Aquic Argiudolls
Markham	Fine, illitic, mesic Mollic Oxyaquic Hapludalfs
Orthents, clayey	Fine, mixed, active, nonacid, mesic Aquic Udorthents
Ozaukee	Fine, illitic, mesic Oxyaquic Hapludalfs
Peotone	Fine, smectitic, mesic Cumulic Vertic Endoaquolls
Pewamo	Fine, mixed, active, mesic Typic Argiaquolls
Urban land	

NRCS County Soil Survey Report is in Appendix E.

Field Investigation

Four (4) wetlands were identified and delineated within the Study Area. Wetland determination data sheets (Appendix G) were completed at 16 sample points that were representative of the wetland and upland conditions near the boundary and where potential wetlands may be present based on the desktop review and field reconnaissance. Appendix B provides photographs, typically at the sample point locations of the wetlands and adjacent uplands. The wetland boundary and sample point locations are shown on Wetland Delineation Map within Appendix A and the wetlands are summarized in Table 1 and detailed in the following section. Problematic vegetation protocols were used to due to the lack of vegetation from herbicide application and crops.

Wetland 1

Wetland 1 is 0.734-acres of a degraded wet meadow infested with reed canary grass and cattail within a depression that connects to the excavated roadside ditch. The wetland continues beyond the study area to the north. The wet meadow has a small shallow marsh in the center of it. The south end of the wetland is a small open depression that is a wet meadow/cottonwood swamp. The wetland boundary was marked at a change in soil and topography. Part of the roadside ditch appears to have been excavated in upland soils.

Dominant vegetation observed in W-1 included eastern cottonwood (*Populus deltoides*, FAC), Kentucky bluegrass (*Poa pratensis,* FAC), reed canary grass (*Phalaris arundinacea*, FACW), and hybrid cattail *(Typha X glauca, OBL).*

Depleted Below Dark Surface (A11), Thick Dark Surface (A12), Depleted Matrix (F3), and Redox Dark Surface (F6) hydric soil indicators were noted at the sample points completed within Wetland 1.

The primary wetland hydrology indicator that was observed at the sample points completed within W-1 includes Inundation Visible on Aerial Imagery (B7). The secondary indicators that were observed within W-1 include Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5).

Wetland 2

Wetland 2 is 1.902-acres of a wet meadow within a closed depression in a cropped field that continues beyond the study area to the north.

Dominant vegetation observed in W-2 included red-rooted pigweed (*Amaranthus retroflexus*, FACU), yellow nutsedge *(Cyperus esculentus, FACW),* cockspur grass (*Echinochloa crus-galli*, FACW), and Pennsylvanica smartweed *(Persicaria pensylvanica, FACW).* No vegetation was available to review due to being a cropped field. Vegetation in a similar landscape position would be encountered at sample point T1A. Based on geomorphology, and presence of hydric soil and primary hydrology indicators one would expect hydrophytic vegetation to dominate under normal conditions.

Thick Dark Surface (A12), Redox Dark Surface (F6), and Redox Depressions (F8) hydric soil indicators were noted at the sample points completed within Wetland 2.

The primary wetland hydrology indicators that were observed at the sample points completed within W-2 includes Inundation Visible on Aerial Imagery (B7) and Oxidized Rhizospheres on Living Roots (C3). The

secondary indicators that were observed within W-2 include Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5). The middle of the depression has a slight rise. Despite the area being on a slight rise, aerial images show the entire depression is inundated at times including this area and hydric soil is present, therefore it still is within a geoposition conducive to wetland formation.

Wetland 3

Wetland 3 is 0.108-acres of a wet meadow within a closed depression in a cropped field that is entirely within the study area.

Dominant vegetation observed in W-3 included red-rooted pigweed (*Amaranthus retroflexus*, FACU), yellow nutsedge *(Cyperus esculentus, FACW),* cockspur grass (*Echinochloa crus-galli*, FACW), and Pennsylvanica smartweed *(Persicaria pensylvanica, FACW).* No vegetation was available to review due to being a cropped field. Vegetation in a similar landscape position would be encountered at sample point T1A. Based on geomorphology, and presence of hydric soil and primary hydrology indicators one would expect hydrophytic vegetation to dominate under normal conditions.

Thick Dark Surface (A12) hydric soil indicator was noted at the sample point completed within Wetland 3.

No primary wetland hydrology indicators were observed at the sample point completed within W-3. The secondary indicators that were observed within W-3 include Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5).

Wetland 4

Wetland 4 is 0.629-acres of a wet meadow within a closed depression and continues beyond the study area to the east. This depression was avoided during planting of the field and is weedy. The wetland boundary was marked at the topographic break.

Dominant vegetation observed in W-4 included red-rooted pigweed (*Amaranthus retroflexus*, FACU), yellow nutsedge *(Cyperus esculentus, FACW),* cockspur grass (*Echinochloa crus-galli*, FACW), and Pennsylvanica smartweed *(Persicaria pensylvanica, FACW).*

Thick Dark Surface (A12) hydric soil indicator was noted at the sample point completed within Wetland 4.

The primary wetland hydrology indicators that were observed at the sample points completed within W-4 includes Drift Deposits (B3) and Inundation Visible on Aerial Imagery (B7). The secondary indicators that were observed within W-4 include Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5).

Conclusion

This report is limited to the identification and delineation of wetlands within the Delineation Area as shown on Figure 1, Appendix A. Other regulated environmental resources that result in land use restrictions may be present (e.g. navigable waterways, floodplains, cultural resources, and threatened or endangered species).

Wetlands

Investigation of the area determined that wetlands exist as shown on the attached figures and Wetland Delineation Map.

Table 1. Summary of Wetlands Identified within the Study Area

Wetland ID	Wetland Description	Cowardin Classification	*Surface Water Connections	*NR151 Protective Area	Acreage On-site
Wetland 1	Degraded Wet Meadow infested with reed canary grass and cattail and a cottonwood swamp within a depression connected to an excavate ditch	PFO1/EM1Bx	Connected to Water of the US	Less susceptible, 10-30 feet	31,976 sf 0.734 acres
Wetland 2	Wet Meadow within a closed depression in a cropped field	PEM1Bf	No connection to surface water	Less susceptible, 10-30 feet	82,832 sf 1.902 acres
Wetland 3	Wet Meadow within a closed depression in a cropped field	PEM1Bf	No connection to surface water	Less susceptible, 10-30 feet	4,698 sf 0.108 acres
Wetland 4	Wet Meadow within a depression in a fallow weedy area of a cropped field	PEM1Bf	No connection to surface water	Less susceptible, 10-30 feet	27,409 sf 0.629 acres
**These are based on professional opinion. Local zoning ordinances may have additional restrictions. US Army Corps of Engineers has authority for determining federal jurisdiction of wetlands and waterways.*					**3.373 ac**

The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers (USACE), state regulation under the jurisdiction of Wisconsin DNR, and local jurisdiction under Kenosha County, and the Village of Somers.

In our opinion, Wetlands 1 is a “Water of the United States” (WOUS) as defined in the Code of Federal Regulations 40 CFR 230.3. The depression/ditch in which the wetland resides has a connection to a navigable waterway or adjacent wetlands. Wetlands 2, 3, and 4 are located within isolated cropped depressions.

Exemptions

Wisconsin Statute 281.36 (4n) provides exemptions for certain nonfederal wetlands and artificial wetlands. Permitting requirements under sub. (3b) do not apply to projects within the following wetlands:

Artificial Wetlands

Landscape feature where hydrophytic vegetation may be present as a result of human modification to the landscape or hydrology and for which the department has no definitive evidence showing a prior wetland or stream history that existed before August 1, 1991, but does not include any of the following:

a. A wetland that serves as a fish spawning area or a passage to a fish spawning area.

b. A wetland created as a result of a mitigation requirement under sub. (3r).

Nonfederal Wetlands

Nonfederal wetlands are wetlands that are not subject to federal jurisdiction for which the US Army Corps of Engineers has issued an Approved Jurisdictional Determination. in urban areas with wetland impacts up to 1-acre per parcel. An urban area means an incorporated area; an area within one-half mile of an incorporated area; or an area in a town that is served by a sewerage system. Permitting requirements under sub. (3b) do not apply to projects in rural areas with wetland impacts up to three (3) acres per parcel for development of structures, such as a building, driveway, or road, with an agricultural purpose, and that do not affect rare and high-quality wetlands.

The determination of federal jurisdiction of wetlands is made by the USACE through an Approved Jurisdictional Determination (AJD). This report may be submitted to the USACE to assist with their determination. Local governments are pre-empted from interfering with wetland exemption determinations or regulating discharges per WI Statute 281.36 (13m).

In our opinion, Wetlands 2-4 are not “Waters of the United States” (WOUS) as defined in the Code of Federal Regulations 40 CFR 230.3. The depressions in which the wetlands reside in are isolated and have no connection to a navigable waterway or adjacent wetlands. There is no culvert connection to the wetlands. Wetlands 2-4 meet the definition of exempt wetlands as defined in Wisconsin Statute 281.36(4n)5(b). If a discharge into the wetlands is necessary for a project a notification must be given to the Wisconsin DNR Wetland ID Program and the local DNR Water Management Specialist and an Approved Jurisdictional Determination must be received from the US Army Corps of Engineers (USACE) prior to commencement of the project, or a wetland general permit application could be submitted.

Protective Areas

WI Admin. Code requires that impervious surfaces shall be kept out of the "protective area" to the maximum extent practicable. Protective area is an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface.

Protective area does not include any area of land adjacent to any stream enclosed within a pipe or culvert, such that runoff cannot enter the enclosure at this location.

a. For outstanding resource waters and exceptional resource waters, and for wetlands in areas of special natural resource interest as specified in s. NR 103.04, 75 feet.

b. For perennial and intermittent streams identified on a United States geological survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50 feet.

c. For lakes, 50 feet.

d. For highly susceptible wetlands, 50 feet. Highly susceptible wetlands include the following types: fens, sedge meadows, bogs, low prairies, conifer swamps, shrub swamps, other forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded basins.

e. For less susceptible wetlands, 10% of the average wetland width, but no less than 10 feet nor more than 30 feet. Less susceptible wetlands include degraded wetlands dominated by invasive species such as reed canary grass.

Protective Areas do not apply to the following:

1. Redevelopment post-construction sites.
2. In-fill development areas less than 5 acres.
3. Structures that cross or access surface waters such as boat landings, bridges and culverts.
4. Structures constructed in accordance with s. 59.692 (1v), Stats.
5. Post-construction sites from which runoff does not enter the surface water, except to the extent that vegetative ground cover is necessary to maintain bank stability.
6. Wetlands that have been completely filled in accordance with all applicable state and federal regulations.

Authority to apply wetland and waterway protective areas under NR 151 lies with the WDNR. Some local zoning authorities and regional planning organizations may have adopted protective areas as setbacks as part of their zoning codes or may have additional land use restrictions within or adjacent to wetlands.

Concurrence and Certification

If wetlands are proposed to be impacted a Section 404 Letter of Permission Authorization will need to be obtained from USACE and according to Section 281.36, Wisconsin Statutes and NR 299 and NR 103, Wisconsin Administrative Code a permit from the WDNR would be necessary.

For wetlands to be confirmed as exempt from state regulatory authority an exemption determination application must be submitted to the DNR Wetland ID Program whose staff makes the final decision.

Chad M Fradette is a WDNR Professionally Assured Wetland Delineator and WDNR concurrence is granted for five years unless site conditions are significantly altered.

Chad M Fradette, EP, Chemist
WI Professionally Assured Wetland Delineator
Lead Wetland Delineator

Shyann P Banker
Environmental Specialist

References

Black, Merel R., and Judziewicz, Emmet J., *Wildflowers of Wisconsin and the Great Lakes Region, A Comprehensive Field Guide,* University of Wisconsin Press, Madison, WI, 2009

Board of Commissioners of Public Lands, *Wisconsin Public Land Survey Records: Original Field Notes and Plat Maps*, Madison, Wisconsin, 2022

Chadde, Steve W., *Wetland Plants of Wisconsin, Second Edition,* Steve Chadde, United States, 2013

Cochrane, Theodore S., Elliot, Kandis, and Lipke, Claudia S., *Prairie Plants of the University of Wisconsin-Madison Arboretum,* University of Wisconsin Press, Madison, WI, 2006

Curtis, Linda, *Woodland Carex of the Upper Midwest*, Curtis to the Third Productions, Lake Villa, IL, 2014

Czarapata, Elizabeth J., *Invasive Plants of the Upper Midwest, an Illustrated Guide to Their Identification and Control,* University of Wisconsin Press, Madison, WI, 2005

Eggers, Steve D., and Reed, Donald M., U.S. Army Corps of Engineers, St. Paul District, *Wetland Plants and Plant Communities of Minnesota & Wisconsin*, 1997

Fassett, Norman C., *A Manual of Aquatic Plants*, University of Wisconsin Press, Madison, WI, 1940

Gleason, Henry A., Ph.D., and Cronquist, Arthur, Ph.D., *Manual of Vascular Plants of Northeastern* Google Earth Aerial Photographs and FSA Slides

Hipp, Andrew, *Field Guide to Wisconsin Sedges,* University of Wisconsin Press, Madison, WI, 2008

Holmgren, Noel H., *Illustrated Companion to Gleason and Cronquist's Manual, Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada,* The New York Botanical Garden, 1998

Judziewicz, Emmet J., Freckmann, Robert W., Kenosha, Lynn G., and Black, Merel R., *Field Guide to Wisconsin Grasses,* University of Wisconsin Press, Madison, WI, 2014

Kenosha County, GIS, *aerial photographs*, *topography*, Kenosha County, WI

Knobel, Edward, *Field Guide to the Grasses, Sedges, and Rushes of the United States,* Dover Publications, Inc., Mineola, NY, 1977

Kopiztke, David A., and Sweeney, Dr. James M., *Threatened and Endangered Species in Forests of Wisconsin, A Guide to Assist with Forestry Activities,* International Paper Co, 2000

Tekiela, Stan, *Wildflowers of Wisconsin, Field Guide,* Adventure Publications, Inc., Cambridge, MN, 2000

Tekila, Stan, *Trees of Wisconsin, Field Guide,* Adventure Publications, Inc., Cambridge, MN, 2002
U.S. Army Corps of Engineers (USACOE), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual:* Midwest *Region*, 2012

U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.5 http://wetland-plants.usace.army.mil/ U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH

U.S. Fish and Wildlife Service, National Wetlands Inventory, 2022

United States and Adjacent Canada, Second Edition New York Botanical Garden, NY, 1991

United States Department of Agriculture Soil Conservation Service, *Soil Survey of Kenosha County, Wisconsin,* 1974

University of Wisconsin Digital Collections Center, *Wisconsin Land Economic Inventory Maps (Bordner Survey)*, Madison, WI, 2022

University of Wisconsin, *Wisconsin Historic Aerial Image Finder,* 2022

USACE, Environmental Laboratory, *Wetlands Delineation Manual, Technical Report Y-87-1*, U.S. Army Engineer Waterways Experiment Station, 1987

USACE, Minnesota Board of Water & Soil Resources, *Guidance for Offsite Hydrology/Wetland Determinations, 2016.*

USDA, FSA, Service Center, *FSA Slides for years 1981 through 2002*. Kenosha County, WI

USDA, Natural Resources Conservation Service (NRCS), *Field Indicators of Hydric Soils in the United States, Guide for delineating Hydric Soils*, Version 5.01, 2003

USDA, NRCS, *Web Soil Survey,* 2022

Uva, Richard H., Neal, Joseph C., and DiTomaso, Joseph M., *Weeds of the Northeast,* Cornell University Press, Ithaca, NY, 1997

Vascular Plants of Northeastern United States and Adjacent Canada, The New York Botanical Garden, 1998

Voss, Edward G., *Michigan Flora*, Cranbrook Institute of Science, Bloomfield Hills, MI, 1972

WDNR, Wisconsin Wetland Inventory Classification Guide, PUBL-W2-W2023, 1992

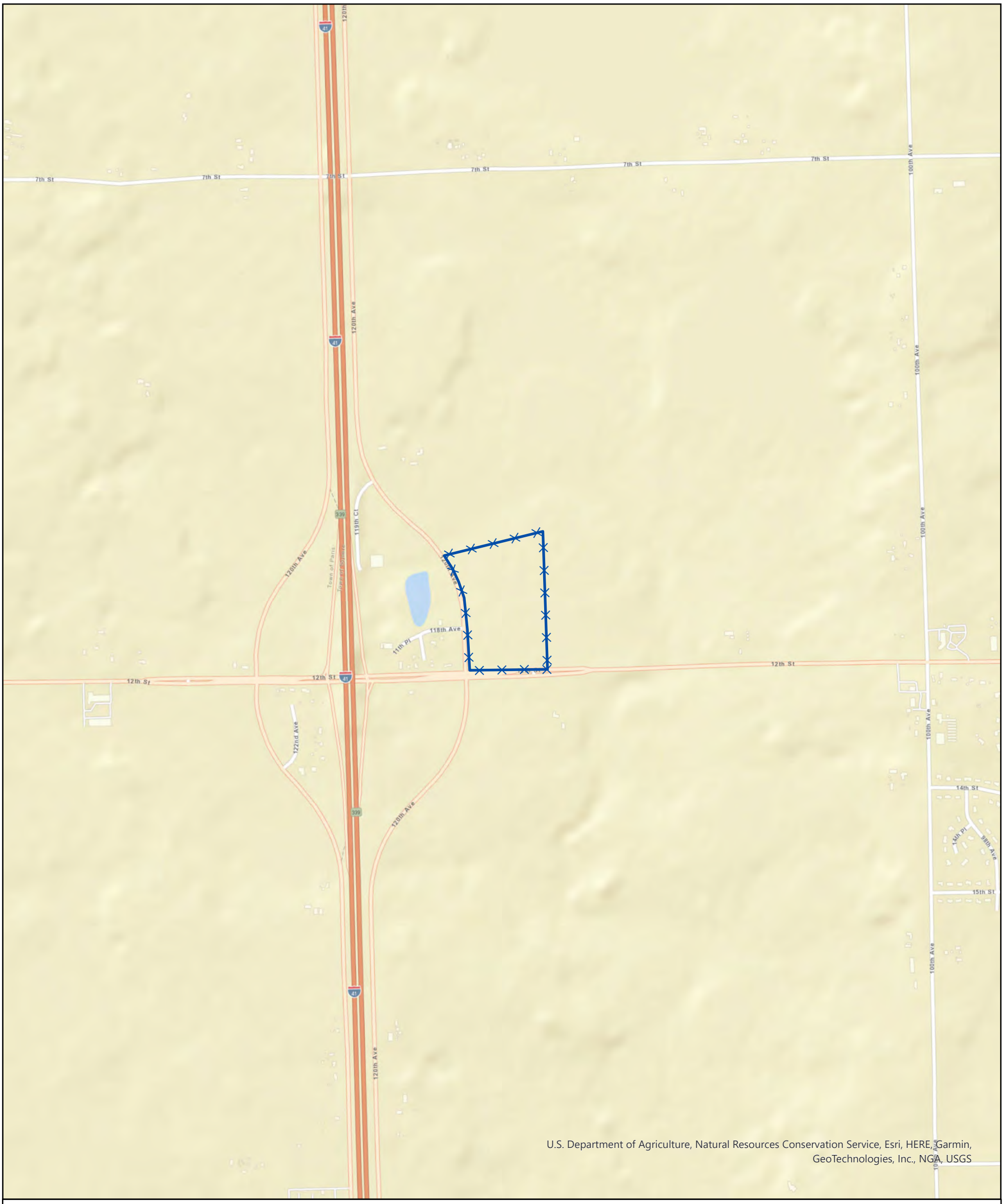
Wetland Training Institute, Inc., *2013 Pocket Guide to Hydric Soil Field Indicators,* Wetland Training Institute, Inc., Glenwood, NM, 2013

Wisconsin Department of Administration, *Basic Guide to Wisconsin's Wetlands and Their Boundaries*, 1995

Wisconsin Department of Natural Resources (WDNR), *Surface Water Data Viewer*, 2022

Appendix A:

Figures and Site Maps



Golden Oil- Somers Marketplace
Site Location Map
12th Street
Village of Somers
Kenosha County, WI

Legend

Site Boundary

N
W
E
S

Project: KEN22-016-01

0 500 1,000 2,000 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Golden Oil- Somers Marketplace
Wetland Delineation Map
12th Street
Village of Somers
Kenosha County, WI

Project: KEN22-016-01

Legend

- Site Boundary
- Wetland Line
- Wetland
- Parcels
- Picture Location
- Sample Point

Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Specialist

0 75 150 300 Feet

N
W E
S

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Golden Oil- Somers Marketplace
Wetland Delineation Map with WDNR Protective Areas
12th Street
Village of Somers
Kenosha County, WI

Legend

- Site Boundary
- Wetland Line
- Wetland
- Parcels
- WDNR Protective Area

N
W E
S

Project: KEN22-016-01

0 75 150 300
Feet

Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Specialist

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Golden Oil- Somers Marketplace
Wetland Delineation Map with Potentially Exempt Wetlands
12th Street
Village of Somers
Kenosha County, WI

Legend

- Site Boundary
- Wetland Line
- Wetland
- Parcels
- Potentially Exempt Non-Federal Wetland
- Sample Point

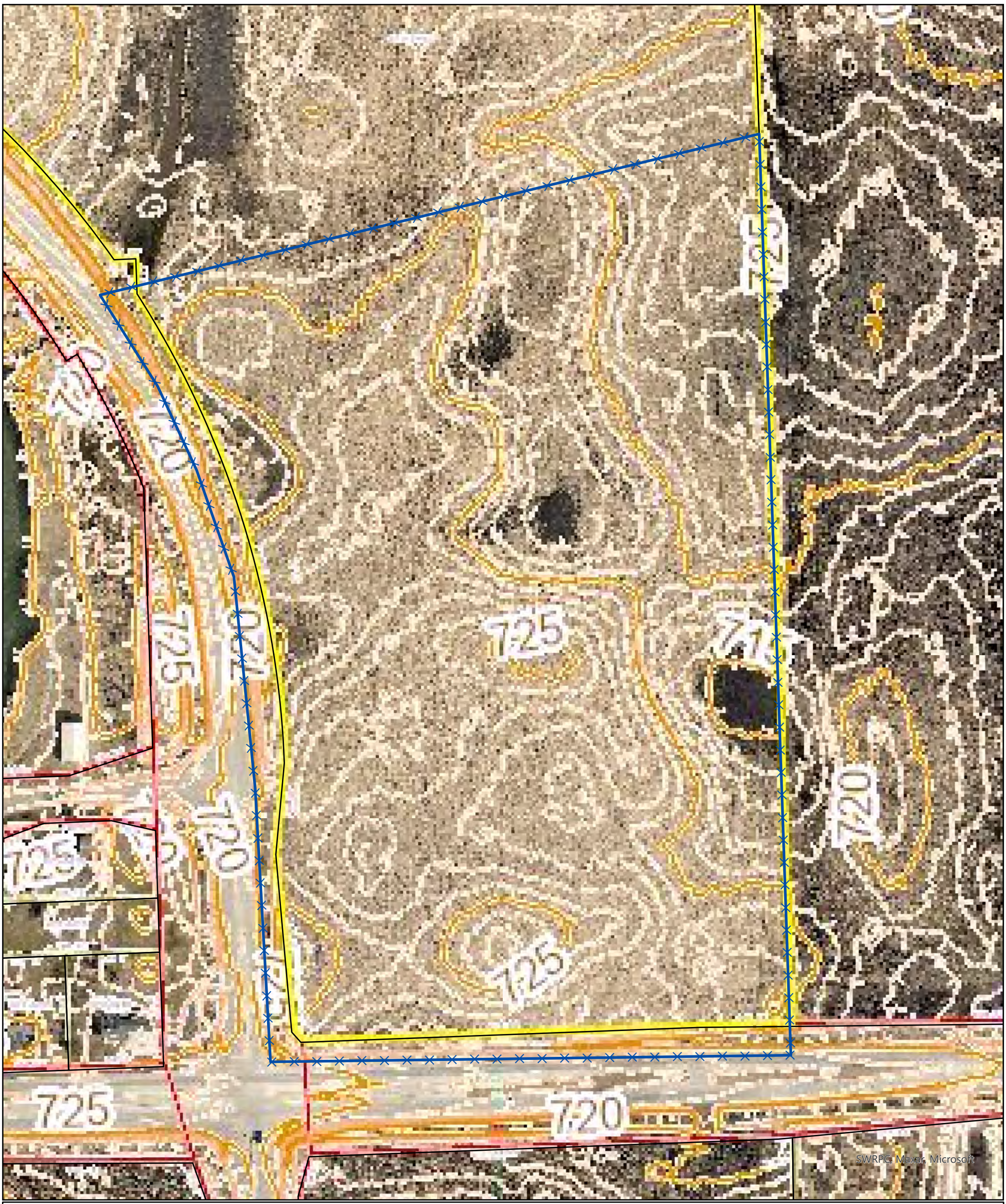
Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Specialist

Project: KEN22-016-01

0 75 150 300 Feet

N
W E
S

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com



Golden Oil- Somers Marketplace
Topographic Map
12th Street
Village of Somers
Kenosha County, WI

Project: KEN22-016-01

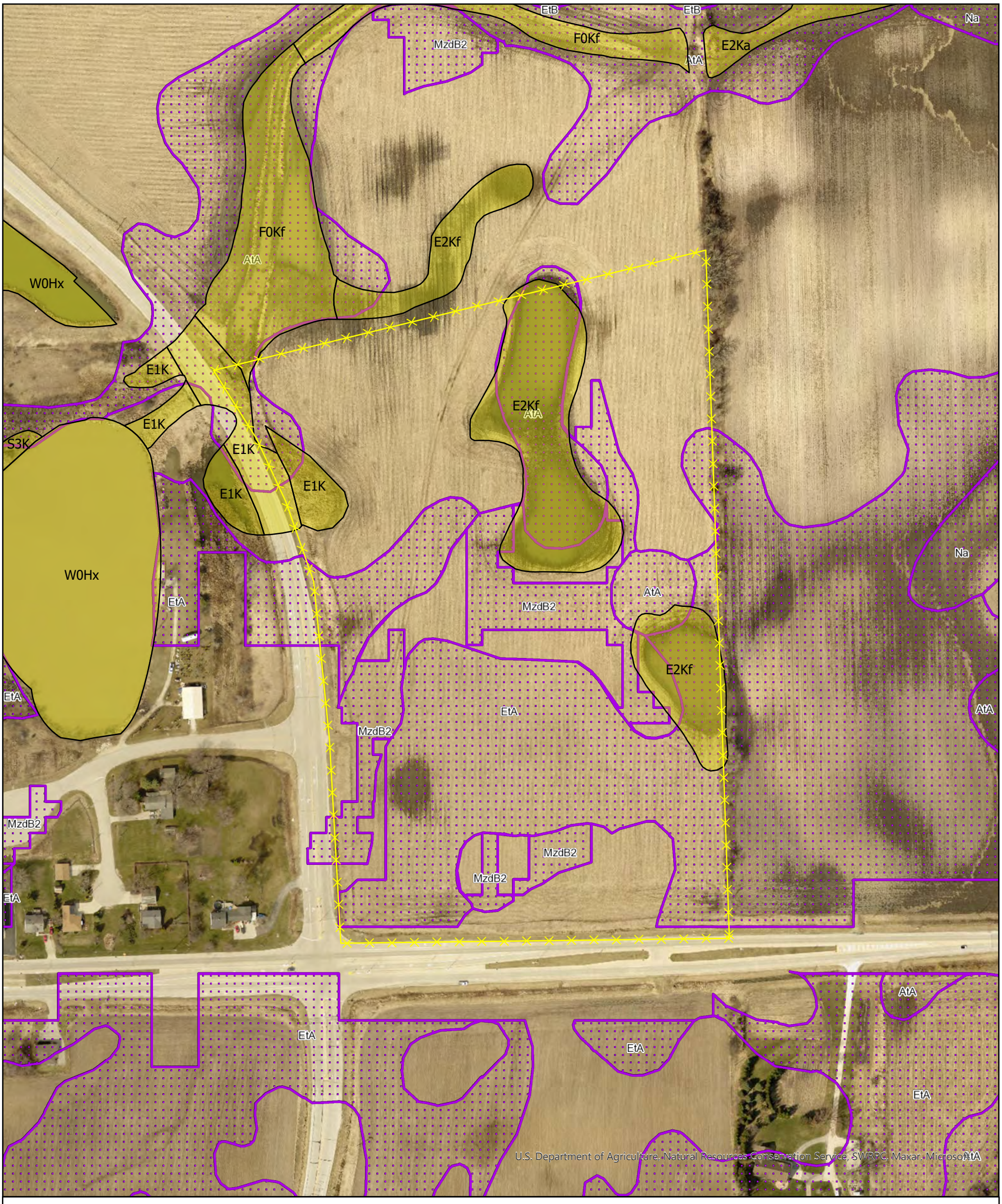
Legend

- Site Boundary
- Parcels

N
W E
S

0 75 150 300 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com



Golden Oil- Somers Marketplace
Wisconsin Wetland Inventory Map
12th Street
Village of Somers
Kenosha County, WI

N
W
E
S

Legend

- Site Boundary
- Wetland Points
- Wisconsin Wetland Inventory
- USDA Wetspots
- Maximum Extent Wetland Indicators

Project: KEN22-016-01

0 100 200 400 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Golden Oil- Somers Marketplace
National Wetland Inventory Map
12th Street
Village of Somers
Kenosha County, WI

Legend

- Site Boundary
- NWI Wetlands

N
W E
S

Project: KEN22-016-01

0 100 200 400 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Golden Oil- Somers Marketplace
NRCS Soil Survey Map
12th Street
Village of Somers
Kenosha County, WI

Legend

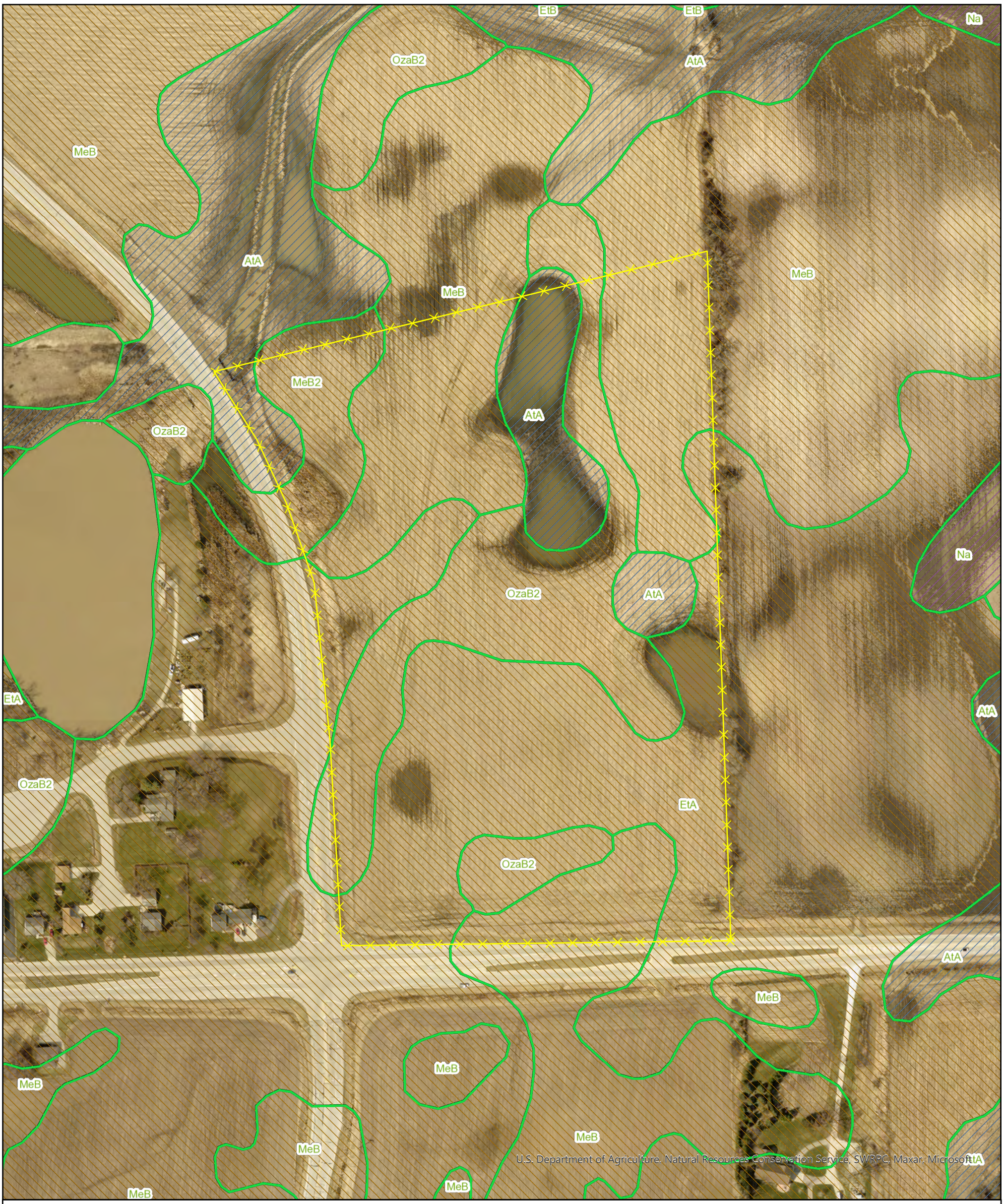
- Site Boundary
- USA Soils Map Units

N
W E
S

Project: KEN22-016-01

0 100 200 400 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com



Golden Oil- Somers Marketplace
NRCS Soil Hydric Ratings Map
12th Street
Village of Somers
Kenosha County, WI

N
W E
S

Legend

Site Boundary

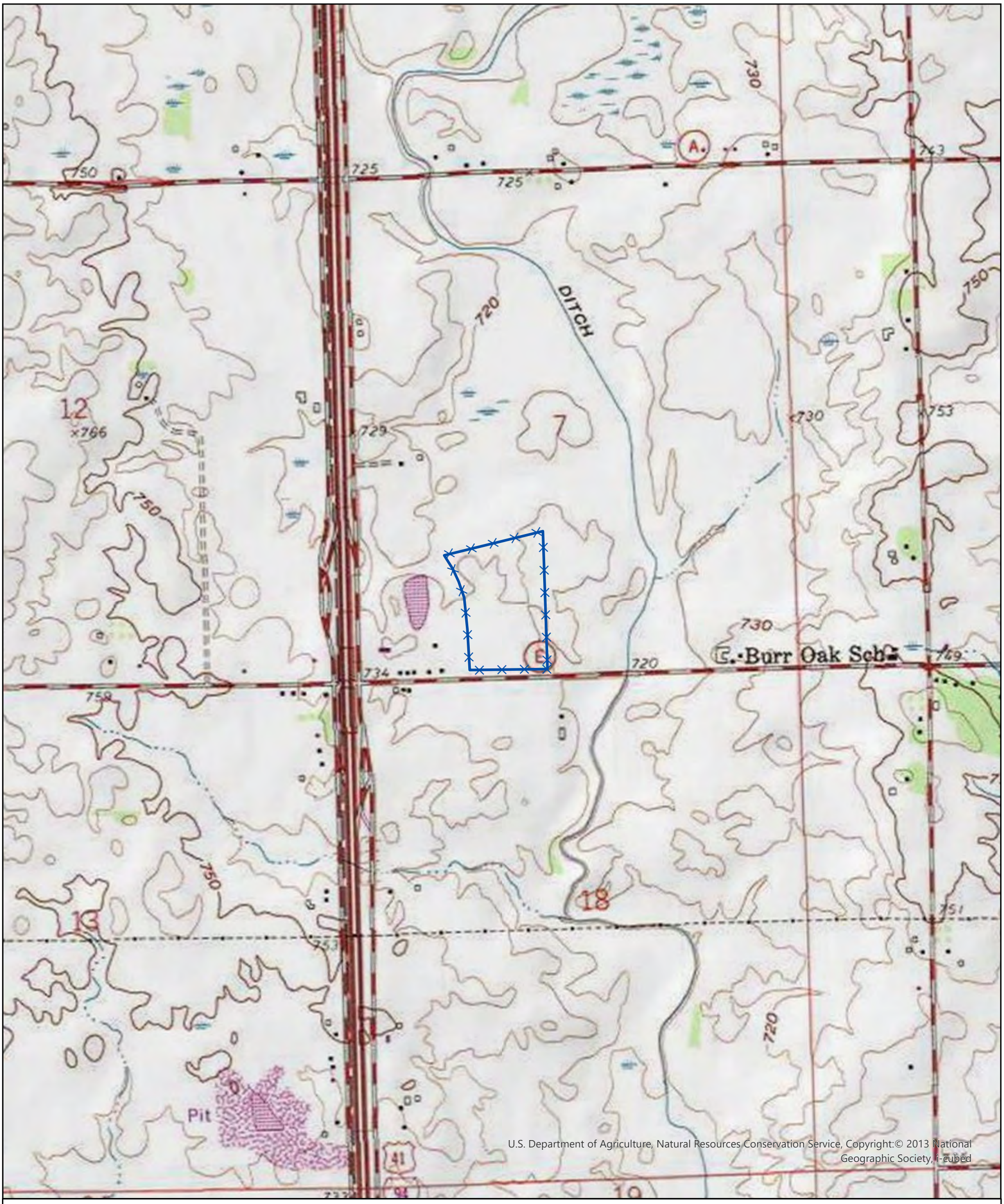
NRCS Soil Hydric Ratings

- Hydric
- Predominantly Hydric
- Partially Hydric
- Predominantly Non-Hydric

Project: KEN22-016-01

0 100 200 400 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com



Golden Oil- Somers Marketplace
Quadrangle Map
12th Street
Village of Somers
Kenosha County, WI

Project: KEN22-016-01

Legend

Site Boundary

N
W E
S

0 500 1,000 2,000 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

Appendix B:

Site Pictures

1- Standing near T1A within Wetland 4.

2- Standing near T1B between Wetlands 2 and 4.

3- Standing near T1C within Wetland 2.

4- Standing near T1D within Wetland 2.

5- Standing near T1E within Wetland 2.

6- Standing near T2A adjacent to the north Site Boundary.

7- Standing near T3A facing west towards Wetland 1.

8- Standing near T3A.

9- Standing near T3B facing towards Wetland 1.

10- Standing near T3B facing northwest.

11- Standing near T3C within Wetland 1.

12- Standing near T3D facing north within Wetland 1.

13- Standing near T3E within Wetland 1.

14- Standing near T3G.

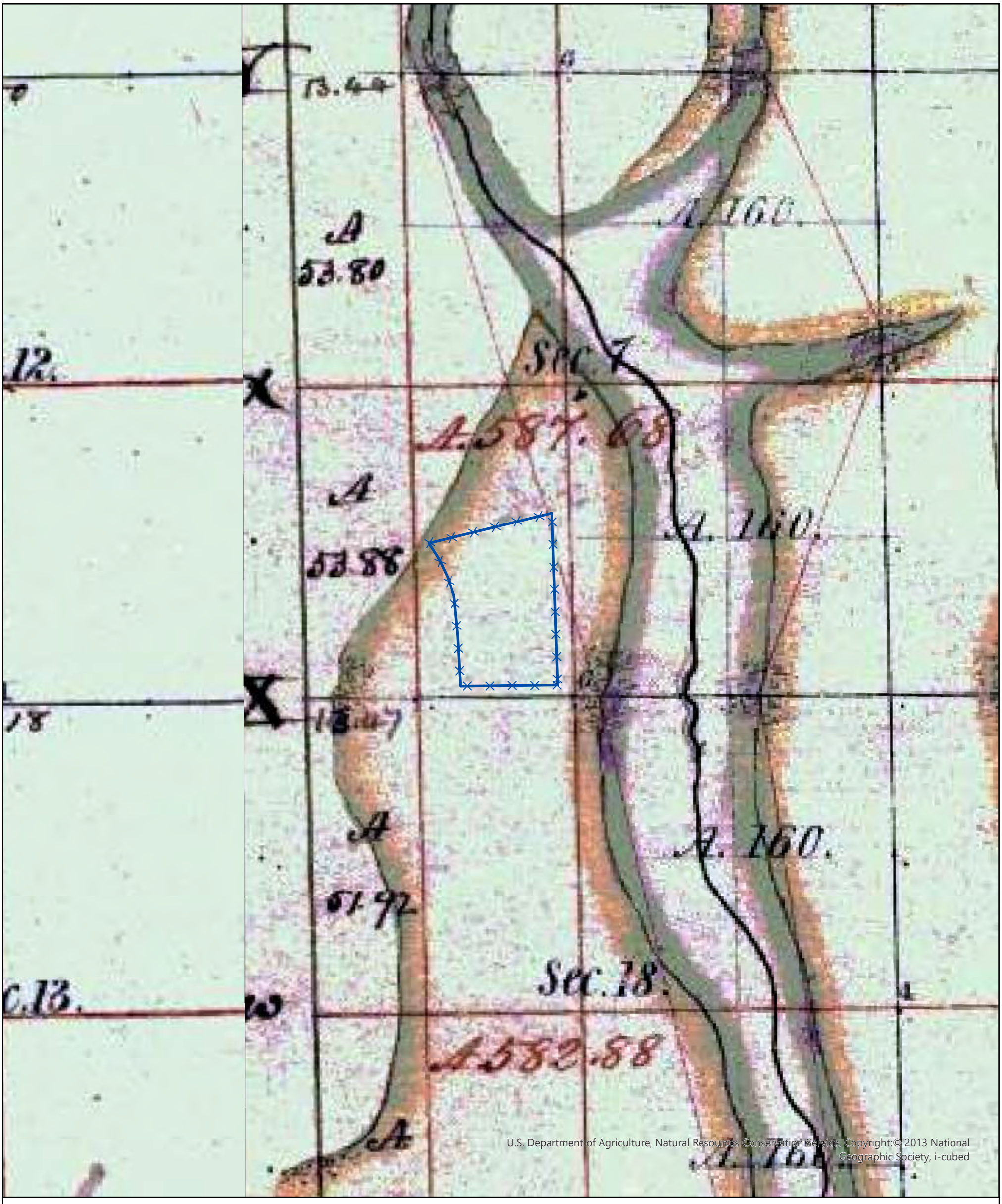
15- Standing near T4A.

16- Standing near T4B within Wetland 3.

17- Standing near T5A facing west towards the southwest corner of the Site Boundary.

Appendix C:

Original Survey, Notes, and Bordner Map



U.S. Department of Agriculture, Natural Resources Conservation Service, Copyright:© 2013 National Geographic Society, i-cubed

Golden Oil- Somers Marketplace
Original Survey Map
12th Street
Village of Somers
Kenosha County, WI

Legend

Site Boundary

N
W E
S

Project: KEN22-016-01

0 400 800 1,600 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

R 22 E 4th Mer.

West Random between Secs 7 & 18
17.50 Enter Aux Plaines River on marsh
35.00 On Same
70.00 Enter Openings
73.47 Intersect W. boundary 10 N post

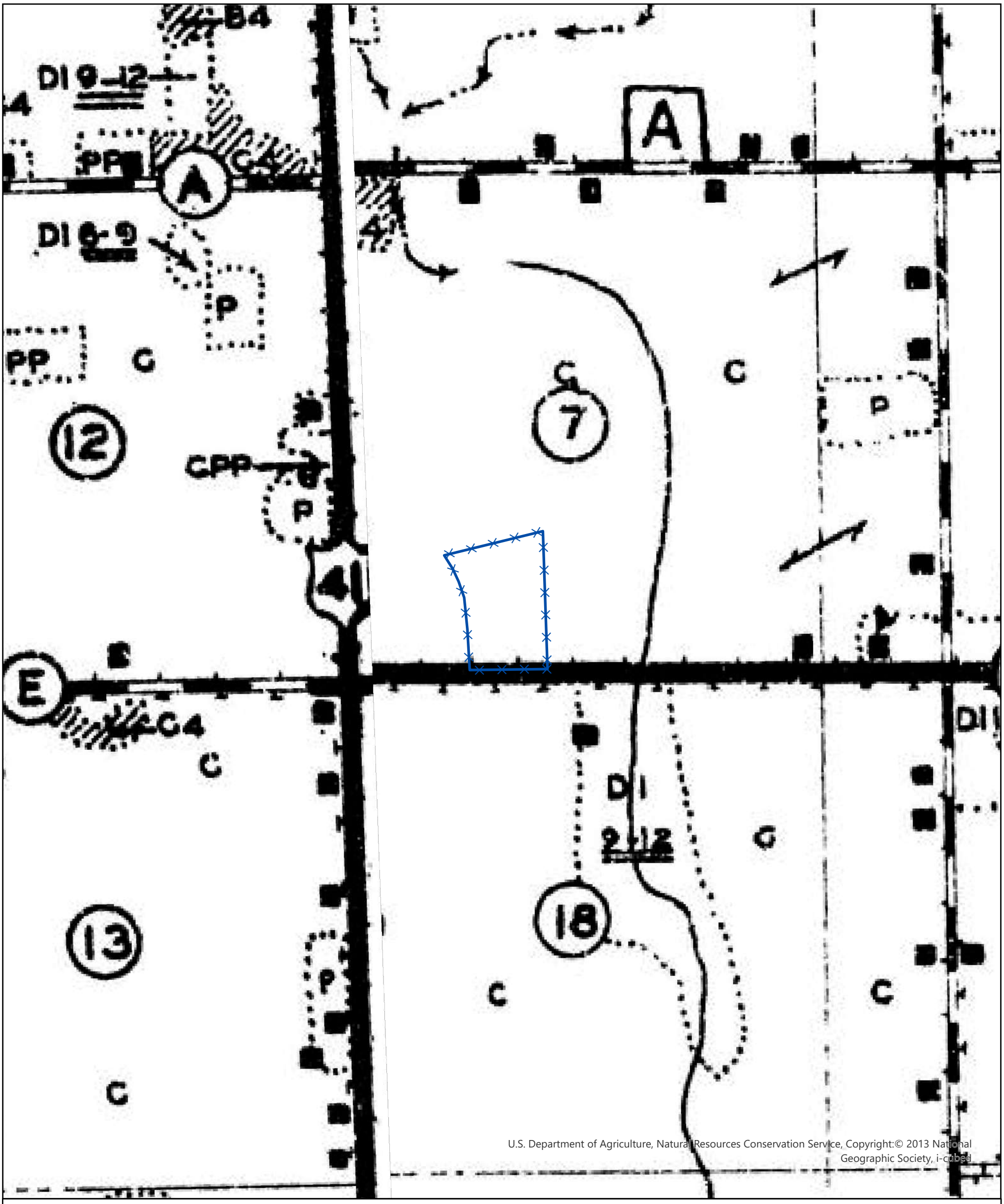
Land 1st rate rolling, Prairie & Openings

East Connected between Secs 7 & 18
Br Ash 16 S 82 E 2.55
Do 12 N E 2.43

33.47 Set ¼ Sec post & mound in Prairie.

73.47 Sec. Cor.

Original Survey Notes



Golden Oil- Somers Marketplace
Bordner Survey Map
12th Street
Village of Somers
Kenosha County, WI

Legend

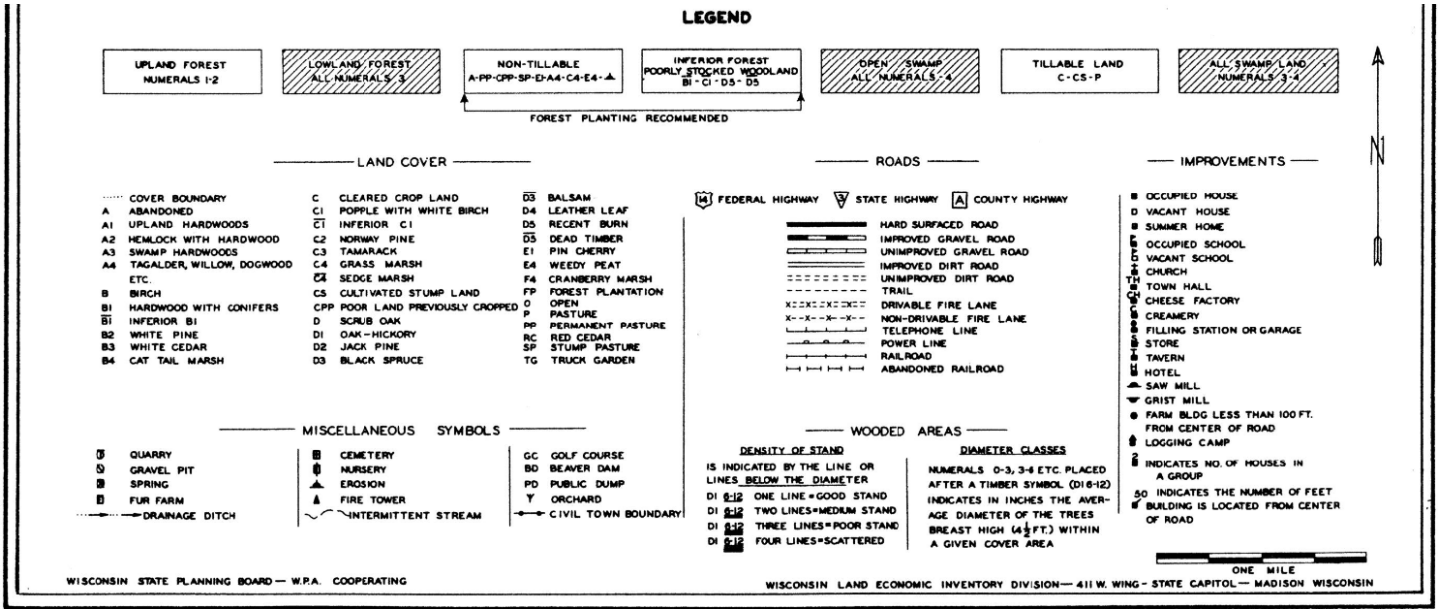
Site Boundary

N
W
E
S

Project: KEN22-016-01

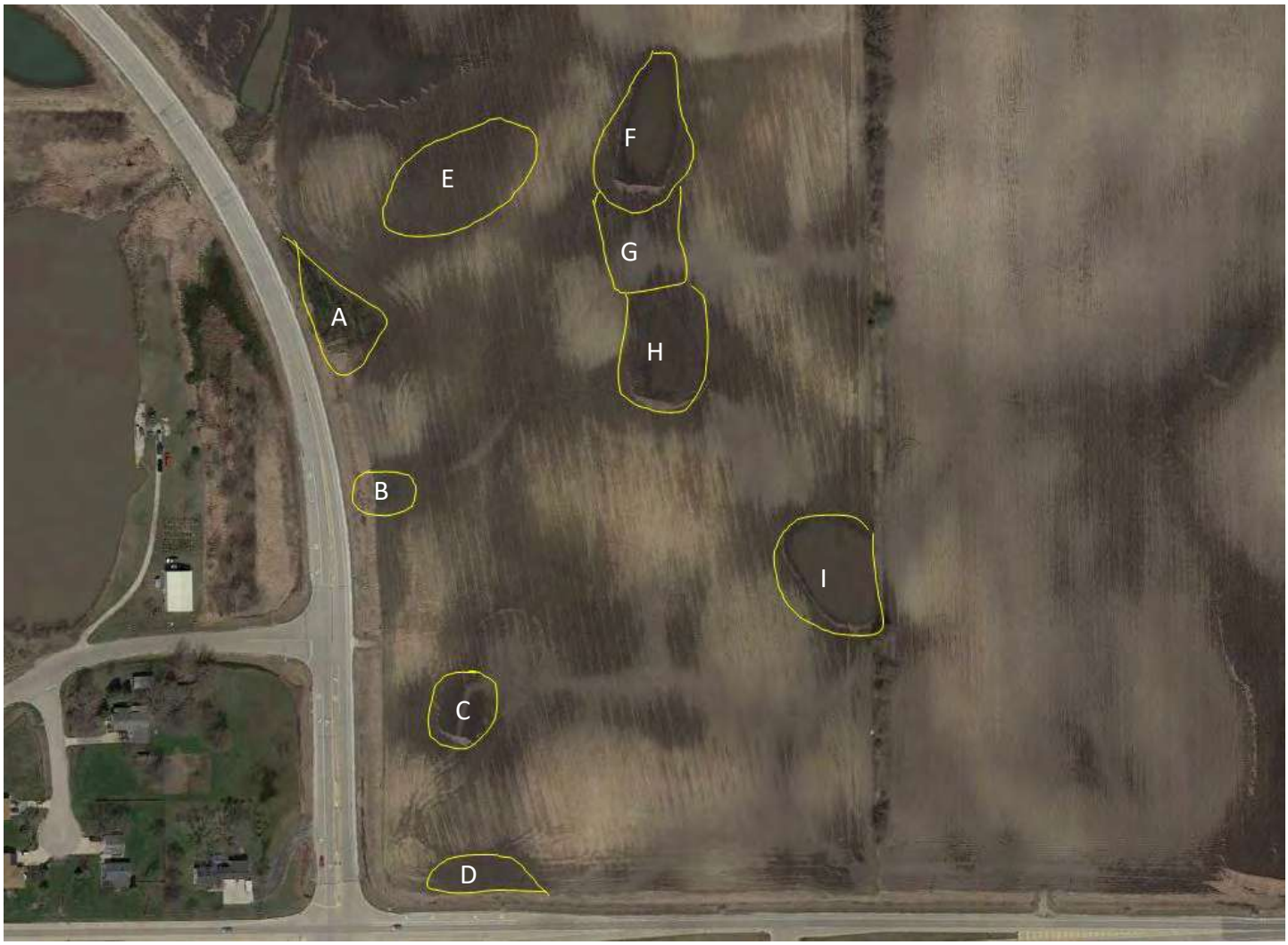
0 500 1,000 2,000 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com


LEGEND
UPLAND FOREST NUMERALS 1-2
LOWLAND FOREST ALL NUMERALS 3
NON-TILLABLE A-PP-CPP-SP-E-A4-C4-E4-▲
INFERIOR FOREST POORLY STOCKED WOODLAND B1-C1-D5-D5
FOREST PLANTING RECOMMENDED
OPEN SWAMP ALL NUMERALS 4
TILLABLE LAND C-CS-P
ALL SWAMP LAND NUMERALS 3-4
N
LAND COVER
COVER BOUNDARY
A ABANDONED
A1 UPLAND HARDWOODS
A2 HEMLOCK WITH HARDWOOD
A3 SWAMP HARDWOODS
A4 TAGALDER, WILLOW, DOGWOOD ETC.
B BIRCH
B1 HARDWOOD WITH CONIFERS
B1 INFERIOR B1
B2 WHITE PINE
B3 WHITE CEDAR
B4 CAT TAIL MARSH
C CLEARED CROP LAND
C1 POPPLE WITH WHITE BIRCH
C1 INFERIOR C1
C2 NORWAY PINE
C3 TAMARACK
C4 GRASS MARSH
C4 SEDGE MARSH
C5 CULTIVATED STUMP LAND
CPP POOR LAND PREVIOUSLY CROPPED
D SCRUB OAK
D1 OAK-HICKORY
D2 JACK PINE
D3 BLACK SPRUCE
D3 BALSAM
D4 LEATHER LEAF
D5 RECENT BURN
D5 DEAD TIMBER
E1 PIN CHERRY
E4 WEEDY PEAT
F4 CRANBERRY MARSH
FP FOREST PLANTATION
O OPEN
P PASTURE
PP PERMANENT PASTURE
RC RED CEDAR
SP STUMP PASTURE
TG TRUCK GARDEN
ROADS
FEDERAL HIGHWAY
STATE HIGHWAY
COUNTY HIGHWAY
HARD SURFACED ROAD
IMPROVED GRAVEL ROAD
UNIMPROVED GRAVEL ROAD
IMPROVED DIRT ROAD
UNIMPROVED DIRT ROAD
TRAIL
DRIVABLE FIRE LANE
NON-DRIVABLE FIRE LANE
TELEPHONE LINE
POWER LINE
RAILROAD
ABANDONED RAILROAD
IMPROVEMENTS
OCCUPIED HOUSE
VACANT HOUSE
SUMMER HOME
OCCUPIED SCHOOL
VACANT SCHOOL
CHURCH
TOWN HALL
CHEESE FACTORY
CREAMERY
FILLING STATION OR GARAGE
STORE
TAVERN
HOTEL
SAW MILL
GRIST MILL
FARM BLDG LESS THAN 100 FT. FROM CENTER OF ROAD
LOGGING CAMP
INDICATES NO. OF HOUSES IN A GROUP
50 INDICATES THE NUMBER OF FEET BUILDING IS LOCATED FROM CENTER OF ROAD
MISCELLANEOUS SYMBOLS
QUARRY
GRAVEL PIT
SPRING
FUR FARM
DRAINAGE DITCH
CEMETERY
NURSERY
EROSION
FIRE TOWER
INTERMITTENT STREAM
GC GOLF COURSE
BD BEAVER DAM
PD PUBLIC DUMP
ORCHARD
CIVIL TOWN BOUNDARY
WOODED AREAS
DENSITY OF STAND
IS INDICATED BY THE LINE OR LINES BELOW THE DIAMETER
D1 6-12 ONE LINE=GOOD STAND
D1 6-12 TWO LINES=MEDIUM STAND
D1 6-12 THREE LINES=POOR STAND
D1 6-12 FOUR LINES=SCATTERED
DIAMETER CLASSES
NUMERALS 0-3, 3-6 ETC. PLACED AFTER A TIMBER SYMBOL (D1 6-12) INDICATES IN INCHES THE AVERAGE DIAMETER OF THE TREES BREAST HIGH (4½ FT.) WITHIN A GIVEN COVER AREA
ONE MILE
WISCONSIN STATE PLANNING BOARD — W.P.A. COOPERATING
WISCONSIN LAND ECONOMIC INVENTORY DIVISION — 411 W. WING - STATE CAPITOL — MADISON WISCONSIN

Appendix D:

Historic Aerial Photographs and Hydrology Assessment



Review Areas

Hydrology Assessment with Aerial Imagery - Recording Form											
Project Name: KEN22-016 Golden Oil			Date:	Sep-21		County:	Kenosha				
Investigator: Chad Fradette			Legal Description (Sec, T, R): SEC 7, T2N, R22E								
Year	**Image Source**	**Climate Condition** (wet, dry, normal)	**Interpretation (List hydrology indicators observed, e.g. crop stress, drowned out, standing water, etc.)**								
			A	B	C	D	E	F	G	H	I
1975	Kenosha Co.	N	SS	NSS	SS	NSS	NSS	SS	SS	SS	SS
1980	Kenosha Co.	N	SS	NSS	NSS	NSS	NSS	SS	NSS	SS	SS
1981	FSA	N	NV	NV	NV	NV	NV	NV	NV	NV	NV
1982	FSA	N	CS	NSS	NSS	NSS	CS	CS	CS	NV/NSS	NSS
1983	FSA	N	NV	NSS	NSS	NSS	NV	NV	NV	NSS	NSS
1984	FSA	N	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS
1985	FSA	N	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS
1986	FSA	N	WS	NSS	NSS	NSS	NSS	WS	NSS	WS	NSS
1987	FSA	N	WS	NSS	NSS	NSS	NSS	WS	NSS	WS	NSS
1990	FSA	N	WS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS
1991	FSA	N	WS	SS	SS	SS	NSS	SS	NSS	SS	SS
1995	Kenosha Co.	N	WS	SS	SS	SS	SS	SS	SS	SS	SS
1997	FSA	N	CS/WS	NV	NV	NV	NV	NV	NV	CS	CS
1998	FSA	N	CS/WS	NSS	NSS	NSS	NSS	NSS	NSS	SS	NSS
2001	FSA	N	WS/CS	CS	CS	CS	NV	CS/DO	NV	CS/DO	CS/DO
2002	FSA	N	WS/SS	NSS	NSS	NSS	SS	SS	NSS	SS	SS
2006	FSA	N	WS/SS	SS	SS	SS	NSS	SS	SS	SS	SS
2007	Google Earth	N	WS/CS	NV	NV	NV	NV	CS	CS	CS	CS
2008	FSA	N	WS/DO	NV	CS	CS	NV	DO	DO	DO	DO
2011	Google Earth	N	WS/DO	NV	NV	NV	NV	CS	NV	CS	CS
2014	FSA	N	SW/SS	SS	SS	NSS	SS	SW/SS	SS	SW/SS	SW/SS
2015	Kenosha Co	N	SW/SS	SS	SS	NSS	NSS	SS	NSS	SW/SS	SS
2016	FSA	N	WS/CS	CS	NV	NV	NV	CS/DO	NV	CS/DO	CS
Summary Table			**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
# Normal Yrs.			23	23	23	23	23	23	23	23	23
# Normal Yrs. With wet signature			19	7	8	5	4	16	7	17	14
% Normal Yrs. With wet signature			83%	30%	35%	22%	17%	70%	30%	74%	61%

*Use key below to label photo interpretations. It is imperative that the reviewer read and understand the guidace associated with the used of these labels if alternamte labels are used, indicate in box below.

Field data sheet reference (if applicable):	

Wetland Determination from Aerial Imagery – Recording Form

Project Name:	KEN22-016 Golden Oil
Investigator:	Chad M Fradette
County:	Kenosha

Date:	Sep-22
Legal Description (S, T, R):	Sec7, T2N, R22E

Use the Decision Matrix below to complete Table 1.

Hydric Soils Present (*1)	Identified on NWI or other wetland map (*2)	Percent with wet signatures from Exhibit 1	Field verification required (*3)	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

***1** The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

***2** At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

***3** Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1

Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present (*1)	Wetland?
A	Yes, field verified	Yes	83%	D2, D5	Yes
B	Yes, field verified	No	30%	D2, D5	Yes
C	Yes, field verified	No	35%	D2	Yes
D	No, field verified	No	22%	No	No
E	No, field verified	No	17%	No	No
F	Yes, field verified	Yes	70%	D2	Yes
G	Yes, field verified	Yes	30%	D2	Yes
H	Yes, field verified	Yes	74%	C3, D2	Yes
I	Yes, field verified	Yes	61%	B3, D2, D5	Yes

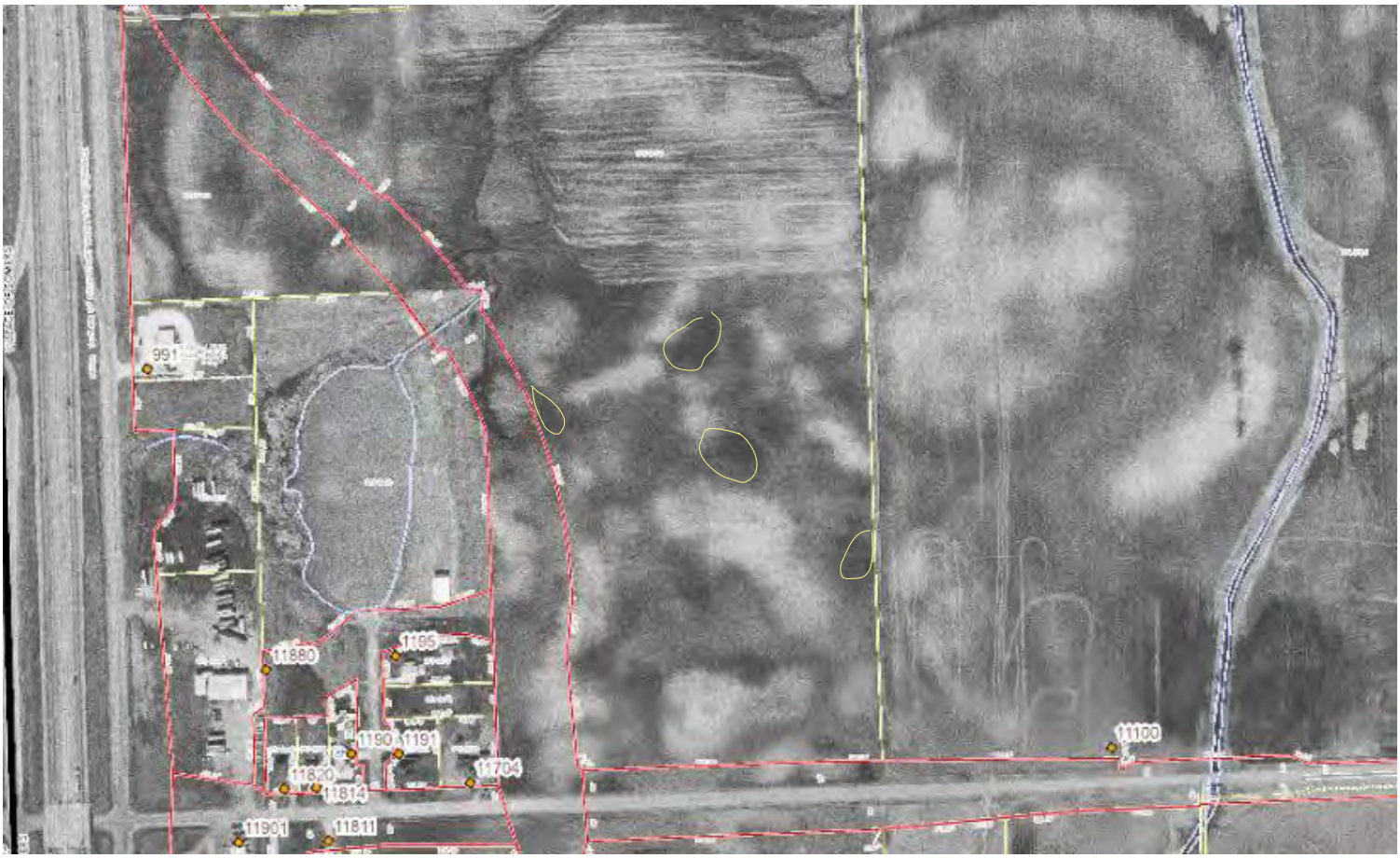
***1 Answer "N/A" if field verification is not required.**

1937 GIS

1963 GIS

1970 GIS

1975 GIS



1980 GIS

1981 FSA

1982 FSA

1983 FSA

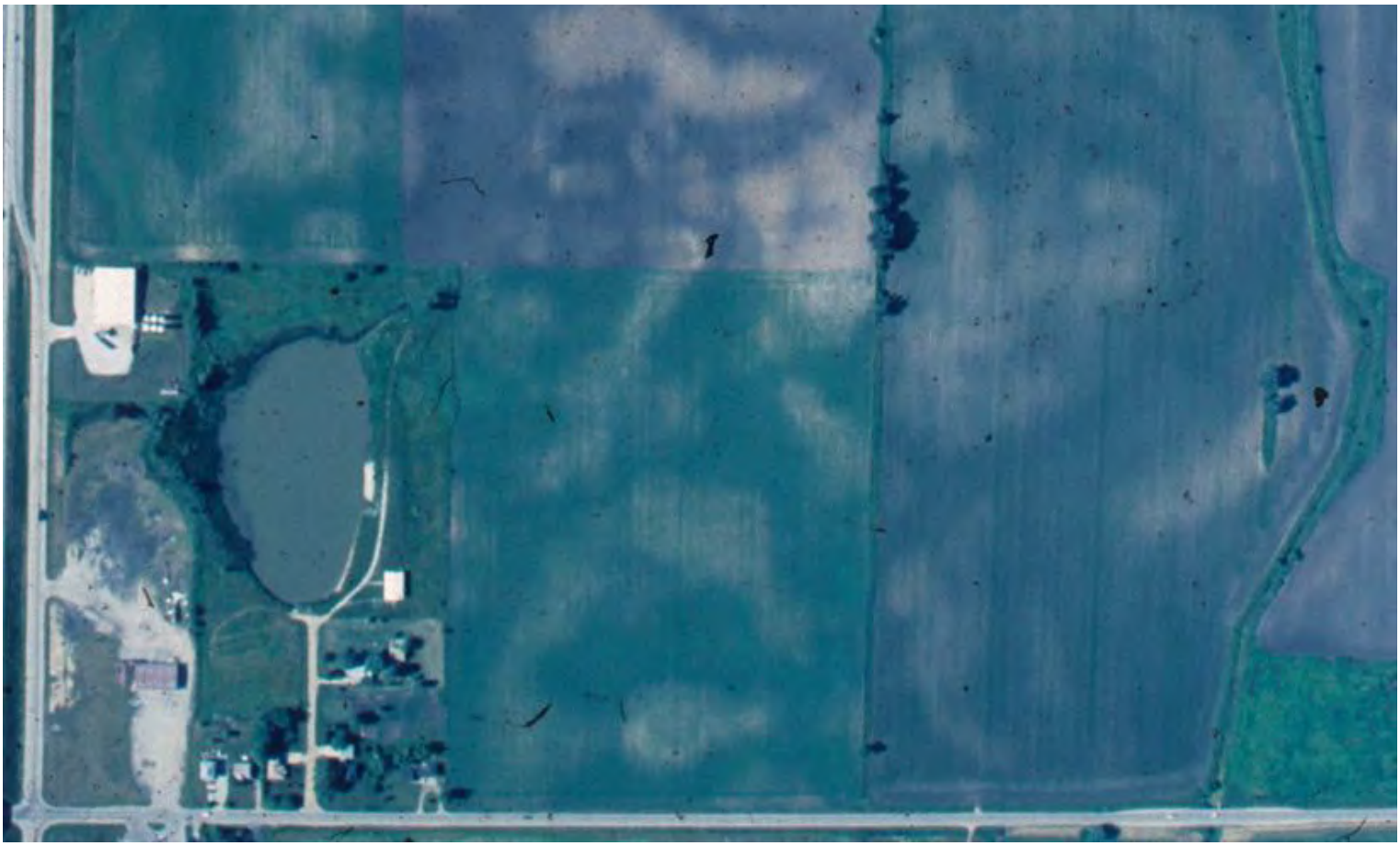
1984 FSA

1985 FSA

1986 FSA

1987 FSA

1988 FSA



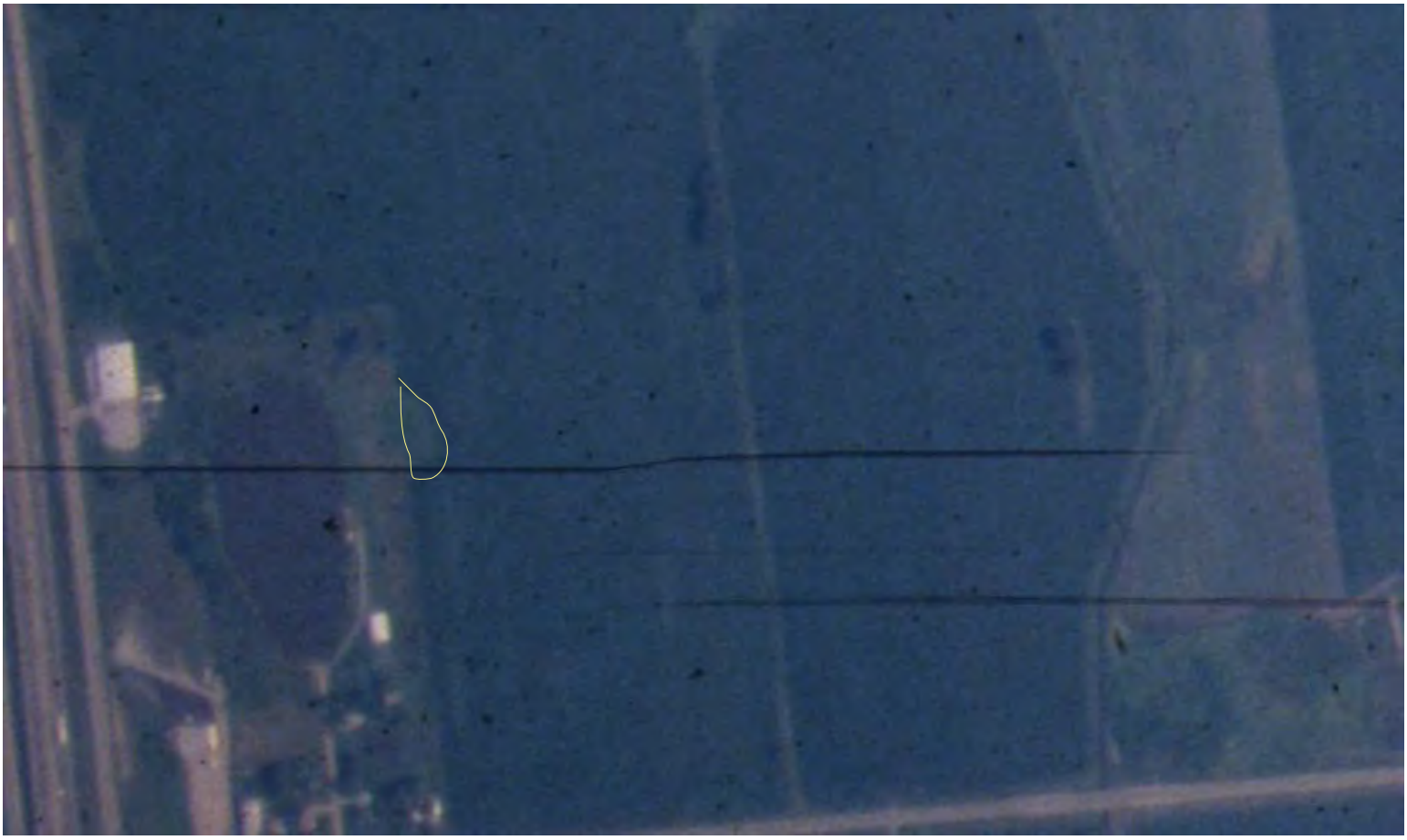
1989 FSA

1990 FSA

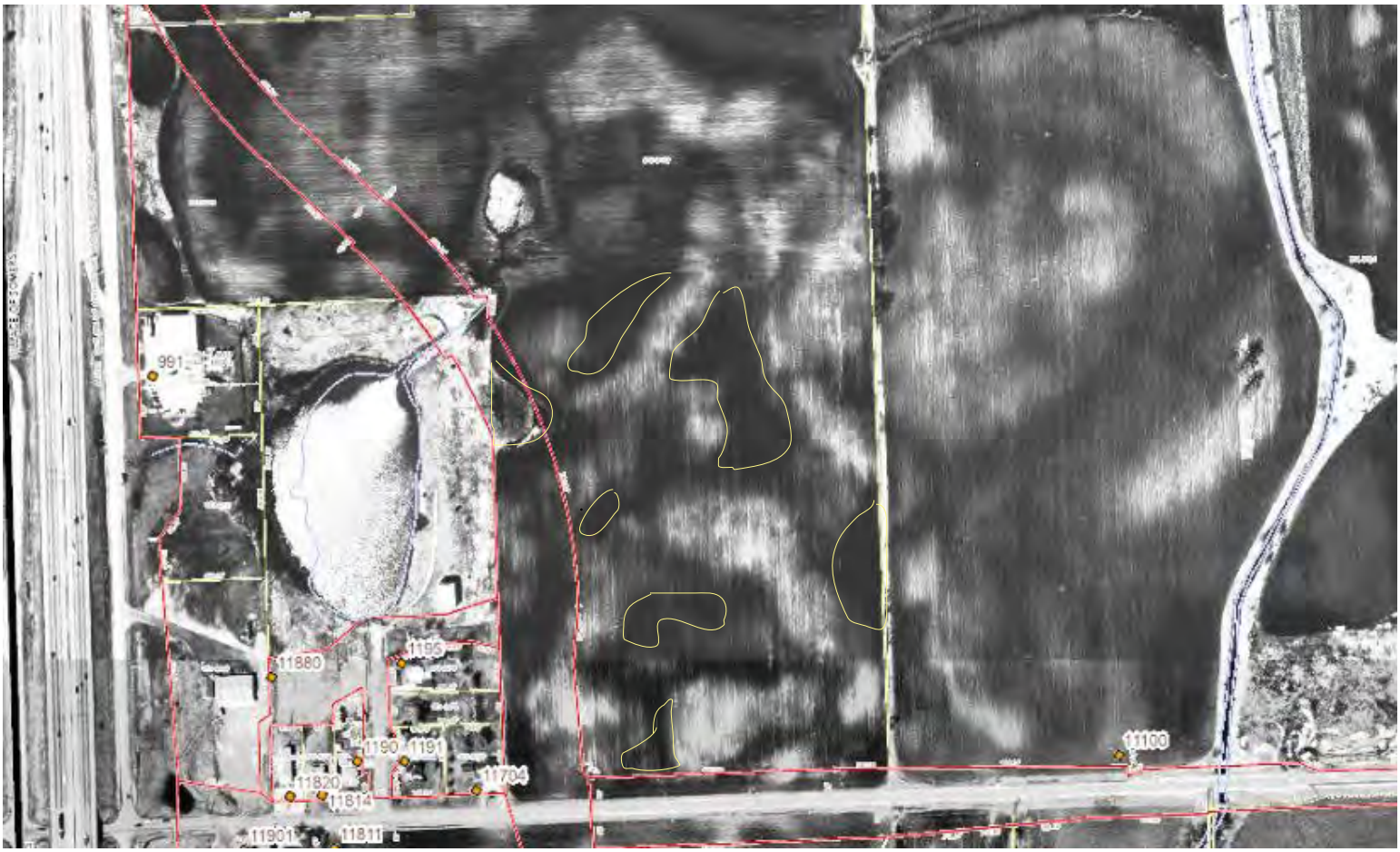
1991 FSA

1992 FSA

1993 FSA



1994 FSA



1995 GIS

1996 FSA

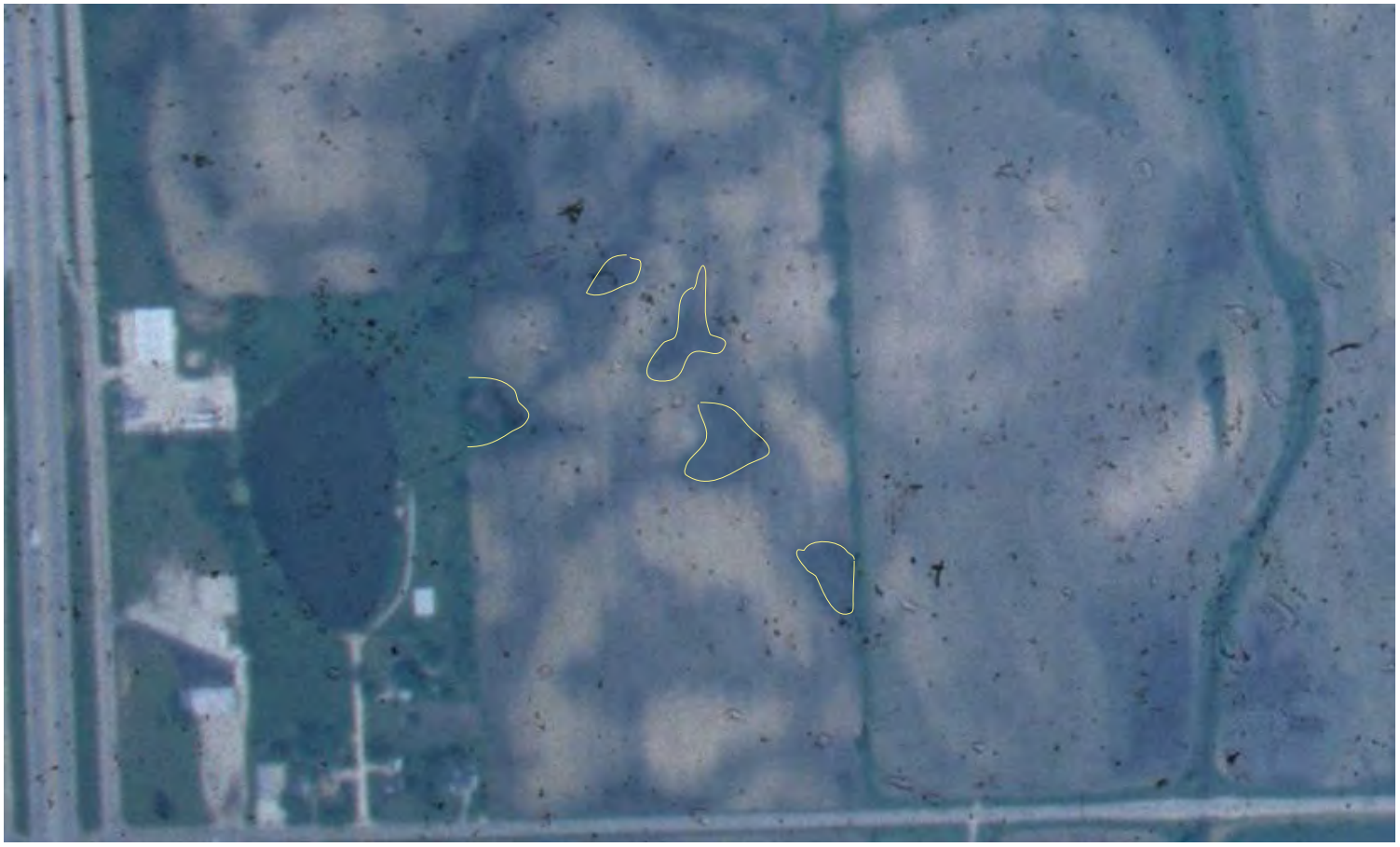
1997 FSA

1998 FSA

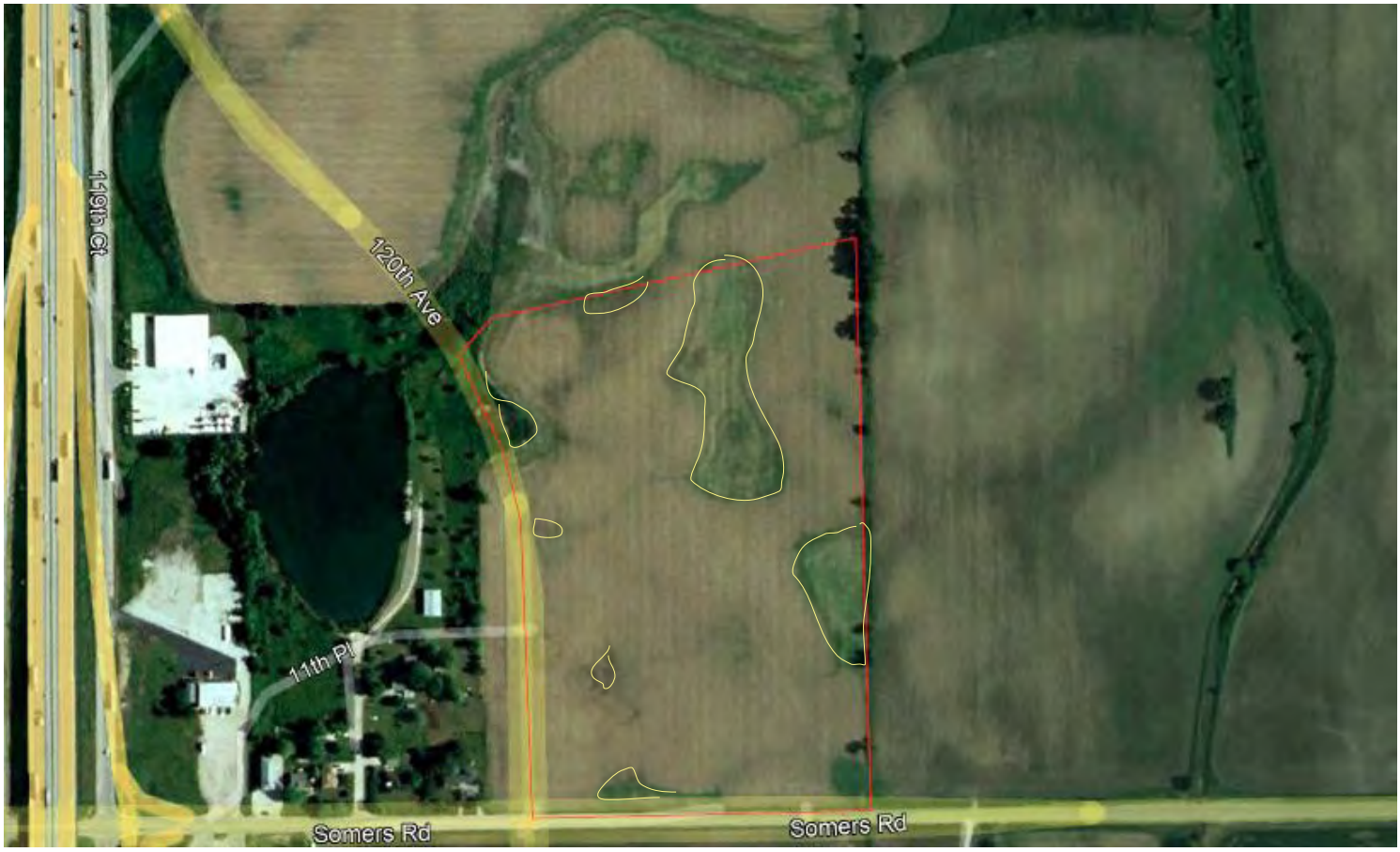
1999 FSA

2000 FSA

2001 FSA

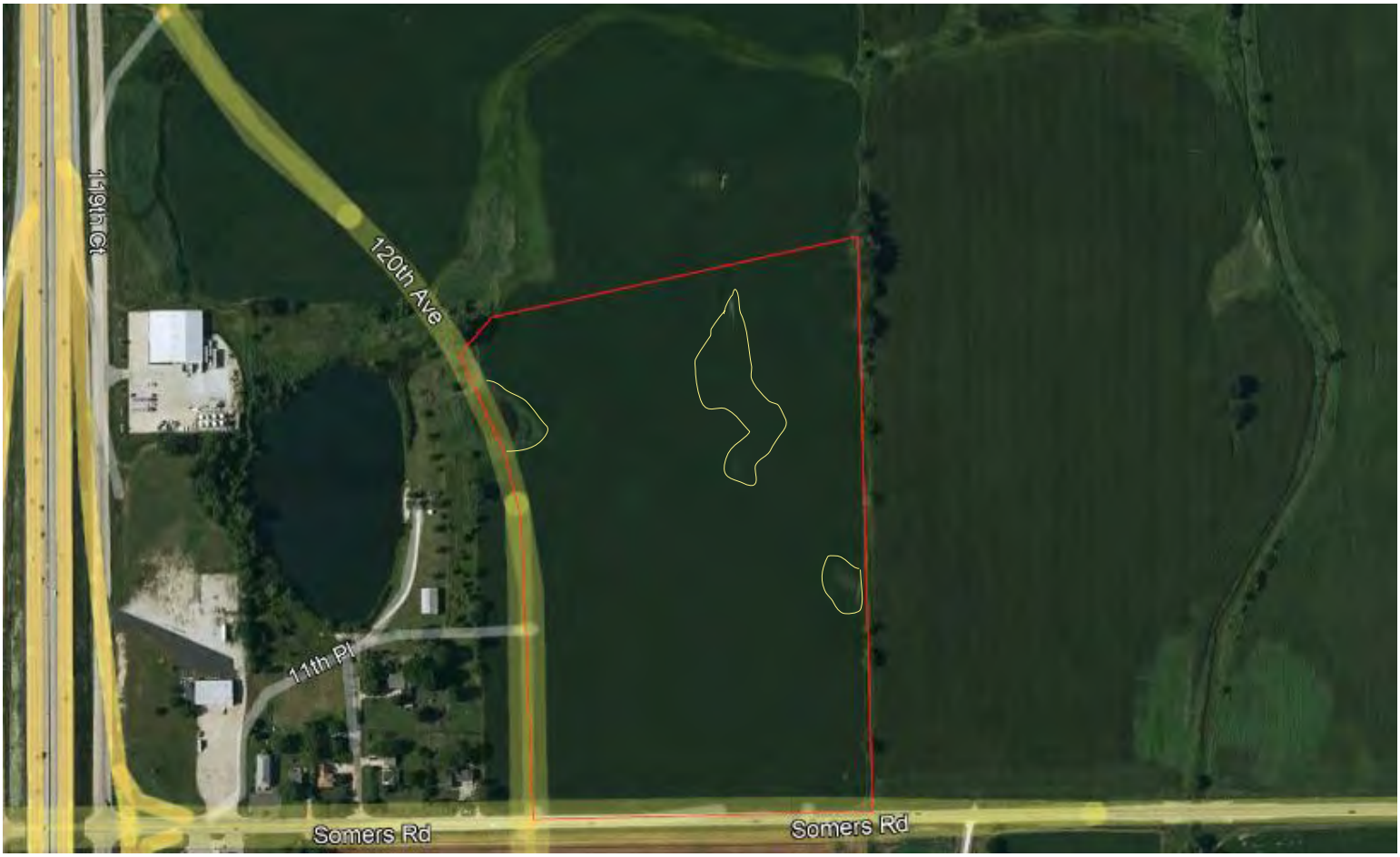


2002 FSA



2004 FSA

2005 Maxar Technologies



2007 GE

2008 FSA

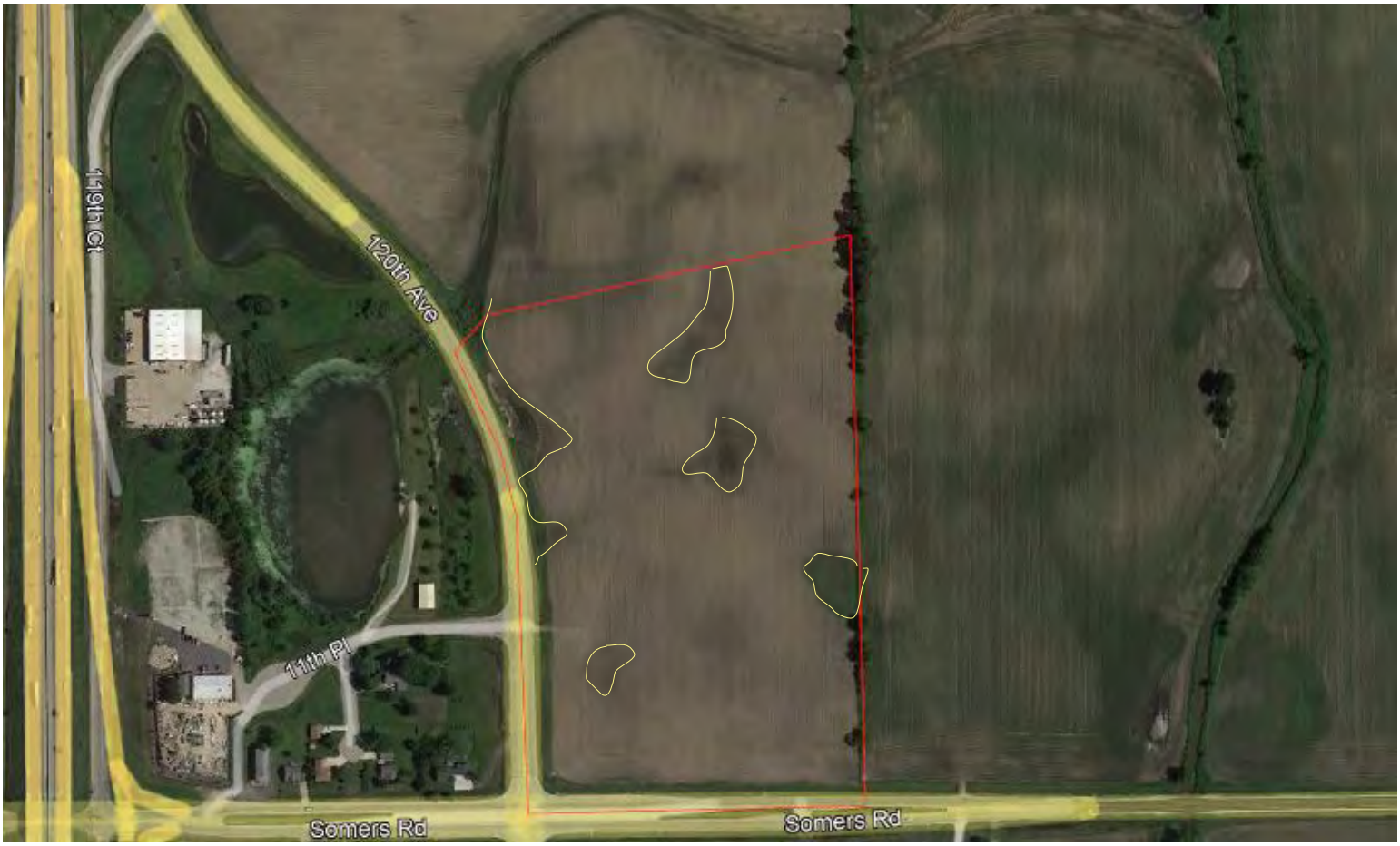
119th Ct
120th Ave
11th Pl
Somers Rd
Somers Rd

2010 FSA

119th Ct
120th Ave
11th Pl
Somers Rd
Somers Rd

2013 GE

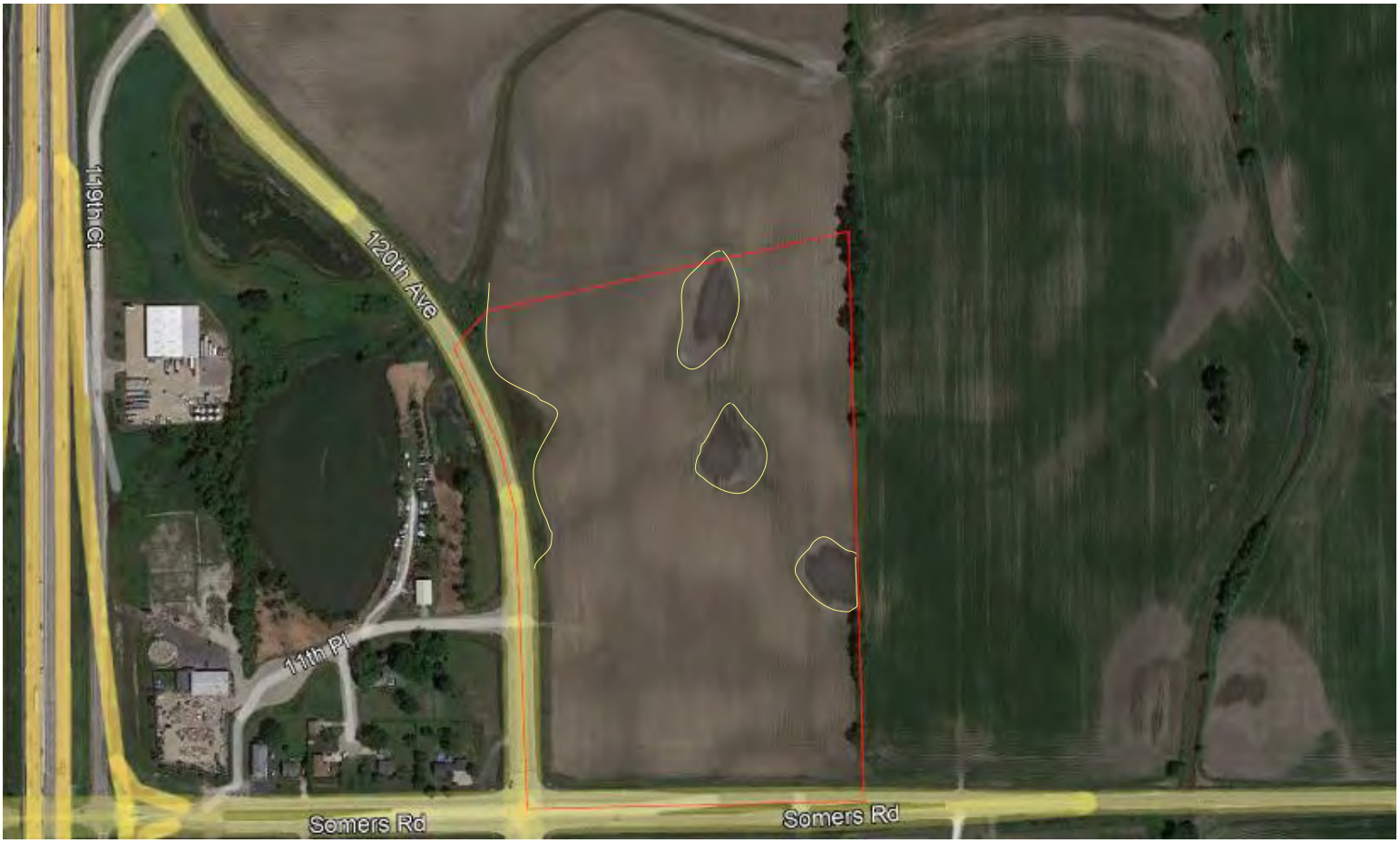
2014 FSA



2015 GE

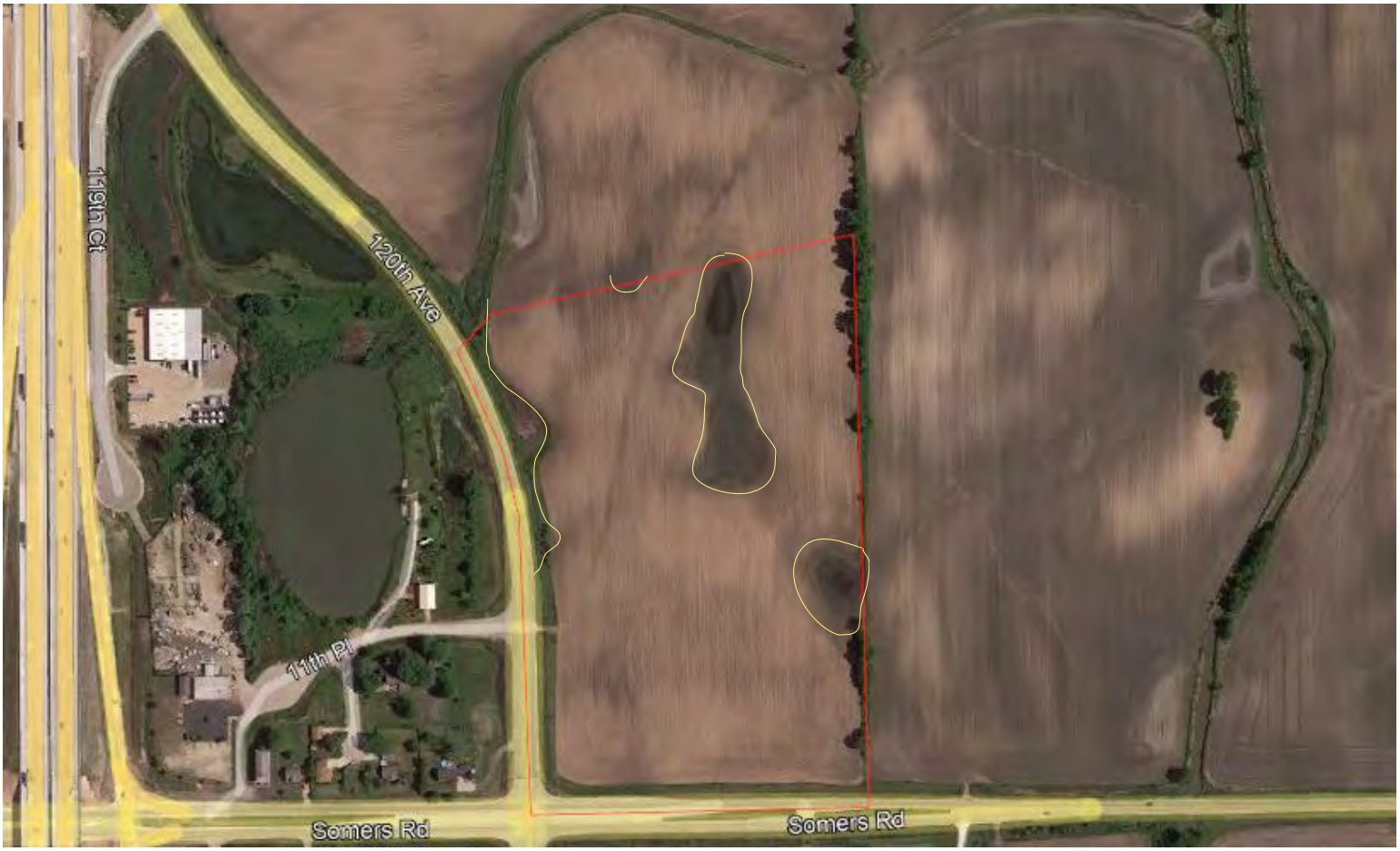
2016 FSA

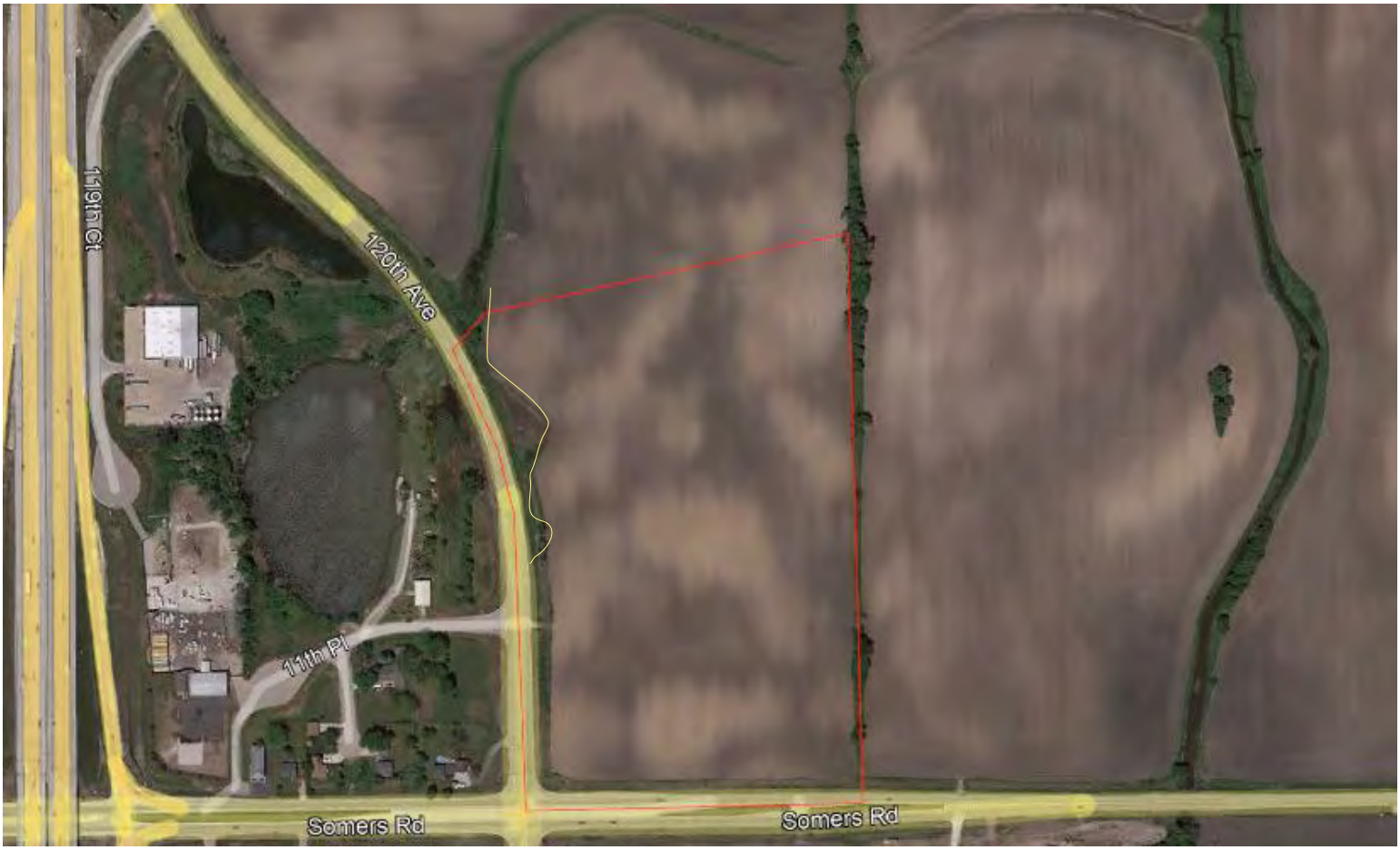
2017 Maxar Technologies



2018 FSA

2019 Maxar Technologies





2021 GE

Appendix E:

NRCS County Soil Survey Report

Map Scale: 1:2,960 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 40 80 160 240

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kenosha and Racine Counties, Wisconsin
Survey Area Data: Version 18, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 20, 2020—Jun 25, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	3.6	10.4%
EtA	Elliott silt loam, 0 to 2 percent slopes	12.3	35.0%
MeB	Markham silt loam, 2 to 6 percent slopes	10.5	30.1%
MeB2	Markham silt loam, 2 to 6 percent slopes, eroded	1.9	5.5%
OzaB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	6.6	19.0%
Totals for Area of Interest		**35.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kenosha and Racine Counties, Wisconsin

AtA—Ashkum silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ssrw
Elevation: 520 to 930 feet
Mean annual precipitation: 33 to 41 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 160 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Ashkum, drained, and similar soils: 92 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ashkum, Drained

Setting

Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Clayey colluvium over till

Typical profile

Ap - 0 to 12 inches: silty clay loam
Bg1 - 12 to 29 inches: silty clay
2Bg2 - 29 to 54 inches: silty clay loam
2Cg - 54 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Minor Components

Peotone, drained
Percent of map unit: 5 percent
Landform: Depressions on ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Orthents, clayey
Percent of map unit: 2 percent
Landform: Ground moraines, lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Urban land
Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

EtA—Elliott silt loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 2sss0
Elevation: 570 to 930 feet
Mean annual precipitation: 33 to 42 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Elliott and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elliott

Setting
Landform: Ground moraines, till plains
Landform position (two-dimensional): Summit, footslope

Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin mantle of loess or other silty material over silty clay loam till

Typical profile

Ap - 0 to 6 inches: silt loam
A - 6 to 11 inches: silty clay loam
Bt1 - 11 to 16 inches: silty clay
2Bt2 - 16 to 41 inches: silty clay loam
2Cd - 41 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 29 to 45 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: C/D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie, R111DY012IN - Till Ridge Prairie
Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 4 percent
Landform: Till plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Orthents, clayey

Percent of map unit: 1 percent

Landform: Till plains, ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

MeB—Markham silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2ytpv
Elevation: 620 to 900 feet
Mean annual precipitation: 33 to 41 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Markham and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Markham

Setting

Landform: End moraines, ground moraines
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over silty clay loam till

Typical profile

Ap - 0 to 11 inches: silt loam
2Bt1 - 11 to 21 inches: silty clay loam
2Bt2 - 21 to 31 inches: silty clay loam
2Cd - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 55 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R110XY010IL - Moist Glacial Drift Upland Savanna
Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 6 percent
Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Pewamo

Percent of map unit: 4 percent
Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Other vegetative classification: Mixed/Transitional (Mixed Native Vegetation)
Hydric soil rating: Yes

MeB2—Markham silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2ytpw
Elevation: 620 to 900 feet
Mean annual precipitation: 33 to 41 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Markham, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Markham, Eroded

Setting

Landform: End moraines, ground moraines

Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over silty clay loam till

Typical profile

Ap - 0 to 8 inches: silt loam
2Bt1 - 8 to 21 inches: silty clay loam
2Bt2 - 21 to 34 inches: silty clay loam
2Cd - 34 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 55 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R110XY010IL - Moist Glacial Drift Upland Savanna
Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 6 percent
Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Pewamo

Percent of map unit: 4 percent
Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Other vegetative classification: Mixed/Transitional (Mixed Native Vegetation)
Hydric soil rating: Yes

OzaB2—Ozaukee silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2sn0d
Elevation: 600 to 930 feet
Mean annual precipitation: 31 to 42 inches
Mean annual air temperature: 46 to 51 degrees F
Frost-free period: 135 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Ozaukee, eroded, and similar soils: 93 percent
Minor components: 7 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ozaukee, Eroded

Setting

Landform: Ground moraines, end moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loess over wisconsinan age silty and clayey till

Typical profile

Ap - 0 to 8 inches: silt loam
Bt1 - 8 to 11 inches: silty clay loam
2Bt2 - 11 to 29 inches: silty clay
2BCt - 29 to 34 inches: silty clay loam
2Cd - 34 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 23 to 43 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest
Other vegetative classification: Trees/Timber (Woody Vegetation)
Hydric soil rating: No

Minor Components

Ashkum, drained
Percent of map unit: 3 percent
Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Other vegetative classification: Grass/Prairie (Herbaceous Vegetation)
Hydric soil rating: Yes

Pewamo, drained
Percent of map unit: 3 percent
Landform: Drainageways on ground moraines, depressions on ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Other vegetative classification: Mixed/Transitional (Mixed Native Vegetation)
Hydric soil rating: Yes

Urban land
Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Rating by Map Unit (WI)

This Hydric Soil Category rating indicates the components of map units that meet the criteria for hydric soils. Map units are composed of one or more major soil components or soil types that generally make up 20 percent or more of the map unit and are listed in the map unit name, and they may also have one or more minor contrasting soil components that generally make up less than 20 percent of the map unit. Each major and minor map unit component that meets the hydric criteria is rated **hydric.** The map unit class ratings based on the hydric components present are: WI Hydric, WI Predominantly Hydric, WI Partially Hydric, WI Predominantly Nonhydric, and WI Nonhydric. The report also shows the total representative percentage of each map unit that the hydric components comprise.

"WI Hydric" means that all major and minor components listed for a given map unit are rated as being hydric. *"WI Predominantly Hydric"* means that all major components listed for a given map unit are rated as hydric, and at least one contrasting minor component is not rated hydric.*"WI Partially Hydric"* means that at least one major component listed for a given map unit is rated as hydric, and at

least one other major component is not rated hydric. *"WI Predominantly Nonhydric"* means that no major component listed for a given map unit is rated as hydric, and at least one contrasting minor component is rated hydric. *"WI Nonhydric"* means no major or minor components for the map unit are rated hydric. The assumption is that the map unit is nonhydric even if none of the components within the map unit have been rated.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

If soils are wet enough for a long enough period of time to be considered hydric, they typically exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and Noble, 2010).

The NTCHS has developed criteria to identify those soil properties unique to hydric soils (Federal Register, 2012). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria use selected soil properties that are described in “Field Indicators of Hydric Soils in the United States” (Vasilas, Hurt, and Noble, 2010), "Soil Taxonomy" (Soil Survey Staff, 1999), "Keys to Soil Taxonomy" (Soil Survey Staff, 2010), and the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

The criteria for hydric soils are represented by codes, for example, 2 or 3. Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. February, 28, 2012. Hydric soils of the United States.
Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Rating by Map Unit (WI)

Hydric Rating by Map Unit (WI)–Kenosha and Racine Counties, Wisconsin				
Map Unit Symbol	**Map Unit Name**	**Hydric Percent of Map Unit**	**Hydric Category**	**Landform Hydric Minor Components**
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	97	WI Predominantly Hydric	Depressions
EtA	Elliott silt loam, 0 to 2 percent slopes	4	WI Predominantly Nonhydric	Till plains
MeB	Markham silt loam, 2 to 6 percent slopes	10	WI Predominantly Nonhydric	End moraines
MeB2	Markham silt loam, 2 to 6 percent slopes, eroded	10	WI Predominantly Nonhydric	End moraines
OzaB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	6	WI Predominantly Nonhydric	End moraines

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are

either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components–WI601-Kenosha and Racine Counties, Wisconsin					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
AtA: Ashkum silty clay loam, 0 to 2 percent slopes	Ashkum-Drained	85-100	End moraines,ground moraines	Yes	2
	Peotone-Drained	0-9	Depressions on ground moraines	Yes	2
	Orthents, clayey	0-3	Ground moraines,lake plains	No	—
	Urban land	0-3	Ground moraines	No	—
EtA: Elliott silt loam, 0 to 2 percent slopes	Elliott	85-100	Ground moraines,till plains	No	—
	Ashkum-Drained	0-9	Till plains,ground moraines	Yes	2
	Urban land	0-3	Ground moraines	No	—
	Orthents, clayey	0-3	Till plains,ground moraines	No	—
MeB: Markham silt loam, 2 to 6 percent slopes	Markham	85-100	End moraines,ground moraines	No	—
	Ashkum-Drained	0-9	End moraines,ground moraines	Yes	2
	Pewamo	0-6	End moraines,ground moraines	Yes	2,3
MeB2: Markham silt loam, 2 to 6 percent slopes, eroded	Markham-Eroded	85-100	End moraines,ground moraines	No	—
	Ashkum-Drained	0-9	End moraines,ground moraines	Yes	2
	Pewamo	0-6	End moraines,ground moraines	Yes	2,3
OzaB2: Ozaukee silt loam, 2 to 6 percent slopes, eroded	Ozaukee-Eroded	88-100	Ground moraines,end moraines	No	—
	Ashkum-Drained	0-7	End moraines,ground moraines	Yes	2
	Pewamo-Drained	0-7	Drainageways on ground moraines,depressions on ground moraines	Yes	2
	Urban land	0-5	Ground moraines	No	—

Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;

3. Soils that are frequently ponded for long or very long duration during the growing season.
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:
Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
Federal Register. September 18, 2002. Hydric soils of the United States.
Federal Register. July 13, 1994. Changes in hydric soils of the United States.
Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
National Research Council. 1995. Wetlands: Characteristics and boundaries.
Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

Report—Hydric Soils

Hydric Soils–Kenosha and Racine Counties, Wisconsin				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
AtA—Ashkum silty clay loam, 0 to 2 percent slopes				
	Ashkum, drained	92	End moraines, ground moraines	2
	Peotone, drained	5	Depressions on ground moraines	2
EtA—Elliott silt loam, 0 to 2 percent slopes				
	Ashkum, drained	4	Till plains, ground moraines	2

Hydric Soils–Kenosha and Racine Counties, Wisconsin				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
MeB—Markham silt loam, 2 to 6 percent slopes				
	Ashkum, drained	6	End moraines, ground moraines	2
	Pewamo	4	End moraines, ground moraines	2, 3
MeB2—Markham silt loam, 2 to 6 percent slopes, eroded				
	Ashkum, drained	6	End moraines, ground moraines	2
	Pewamo	4	End moraines, ground moraines	2, 3
OzaB2—Ozaukee silt loam, 2 to 6 percent slopes, eroded				
	Ashkum, drained	3	End moraines, ground moraines	2
	Pewamo, drained	3	Drainageways on ground moraines, depressions on ground moraines	2

Taxonomic Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. This table shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol.* An example is Alfisols.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalfs (*Ud*, meaning humid, plus *alfs*, from Alfisols).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalfs*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other

orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, active, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

References:
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. (The soils in a given survey area may have been classified according to earlier editions of this publication.)

Report—Taxonomic Classification of the Soils

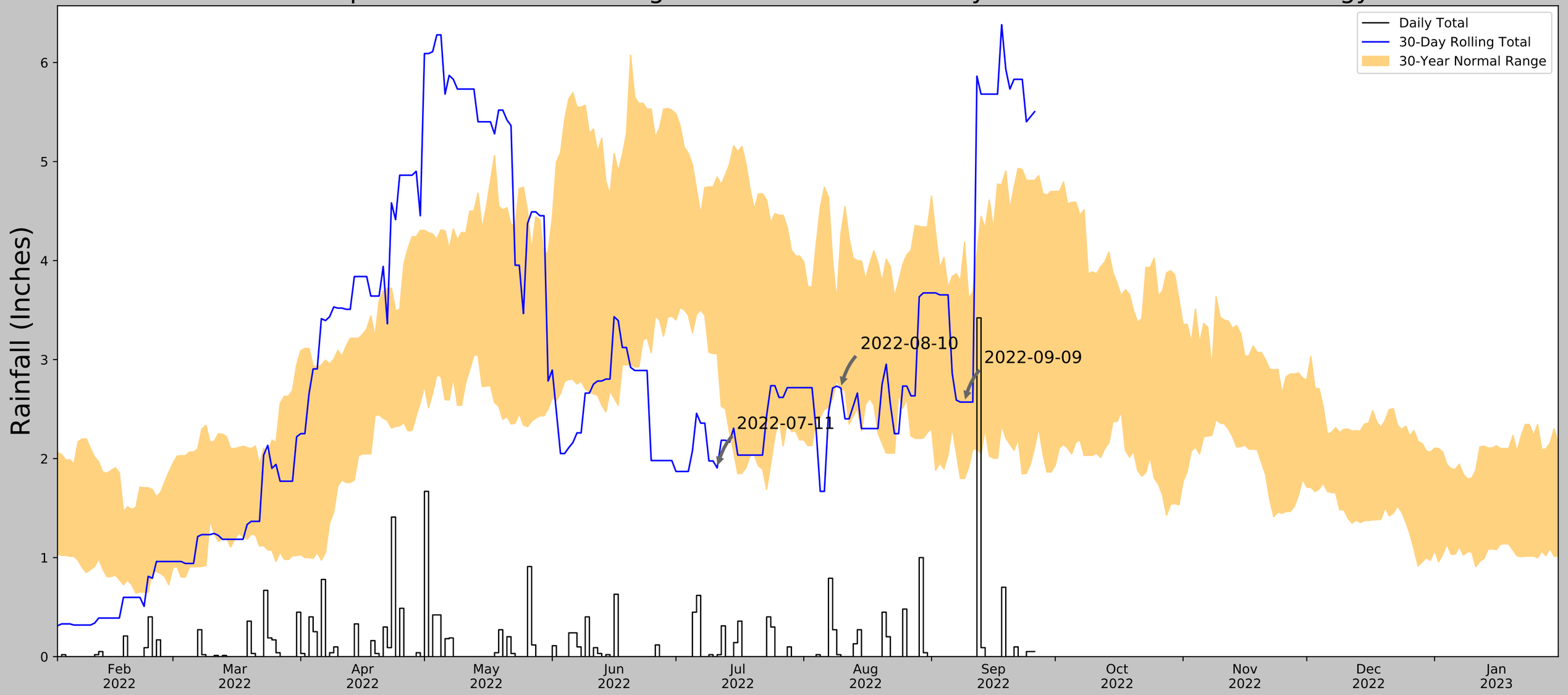
[An asterisk by the soil name indicates a taxadjunct to the series]

Taxonomic Classification of the Soils–Kenosha and Racine Counties, Wisconsin	
Soil name	**Family or higher taxonomic classification**
Ashkum	Fine, mixed, superactive, mesic Typic Endoaquolls
Elliott	Fine, illitic, mesic Aquic Argiudolls
Markham	Fine, illitic, mesic Mollic Oxyaquic Hapludalfs
Orthents, clayey	Fine, mixed, active, nonacid, mesic Aquic Udorthents
Ozaukee	Fine, illitic, mesic Oxyaquic Hapludalfs
Peotone	Fine, smectitic, mesic Cumulic Vertic Endoaquolls
Pewamo	Fine, mixed, active, mesic Typic Argiaquolls
Urban land	

Appendix F:

Precipitation Information

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



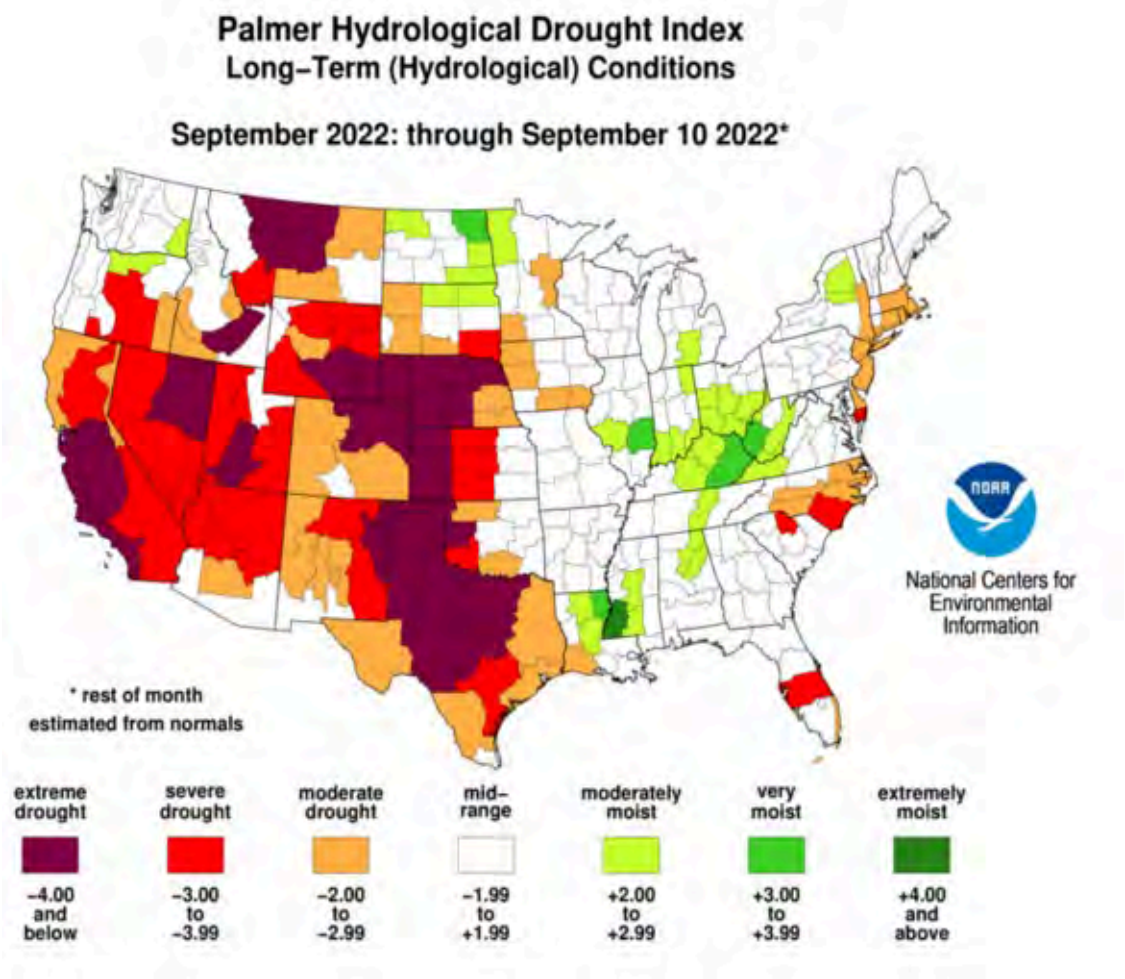
Coordinates	42.6419132, -87.9449247
Observation Date	2022-09-09
Elevation (ft)	719.75
Drought Index (PDSI)	Incipient drought (2022-08)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-09-09	1.799606	4.18504	2.570866	Normal	2	3	6
2022-08-10	2.700394	4.268898	2.712599	Normal	2	2	4
2022-07-11	3.060236	4.844095	1.905512	Dry	1	1	1
Result							Normal Conditions - 11

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
UNION GROVE	42.6903, -88.0336	729.987	5.61	10.237	2.582	11319	89
KENOSHA RGNL AP	42.595, -87.9381	743.11	3.26	23.36	1.543	23	1
KENOSHA	42.5608, -87.8156	600.066	8.641	119.684	4.923	8	0
RACINE	42.7022, -87.7861	595.144	9.08	124.606	5.218	3	0



Sources: National Oceanic & Atmospheric Administration, Palmer Hydrological Drought Index

Appendix G:

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T1A

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Closed Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.6419132 Long: -87.9449247 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: PUSC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks:

Sample point is located within a depression in a cropped, avoided during planting. Wetland boundary marked at topographic break. Area is weedy.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Amaranthus retroflexus	50	✔	FACU
2. Cyperus esculentus	30	✔	FACW
3. Echinochloa crus-galli	30	✔	FACW
4. Persicaria pensylvanica	30	✔	FACW
5. Panicum virgatum	20		FAC
6. Abutilon theophrasti	10		FACU
7. Setaria viridis	10		UPL
8.			
9.			
10.			
	180% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	10	x 5 =	50
Column Totals:	180 (A)		530 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: T1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 24	10YR 2/1	100					Silt Loam	
12 - 36	N 2.5/	100					Silt Loam	
36 - 42	10YR 4/2	95	7.5YR 4/6	5	C	M	Silt Loam	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): _____

Water Table Present? Yes ___ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with two primary and three secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil | City/County: Somers/Kenosha | Sampling Date: 2022-09-09

Applicant/Owner: Excel | State: Wisconsin | Sampling Point: T1B

Investigator(s): Chad M Fradette | Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex

Slope (%): 3-4 | Lat: 42.6425039 | Long: -87.9454535 | Datum: WGS 84

Soil Map Unit Name: Ashkum silty clay loam, 0-2% slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa carolina	10	✔	FACU
2. Acer negundo	5	✔	FAC
3. Rhamnus cathartica	5	✔	FAC
4.			
5.			
	20% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus repens	60	✔	FACU
2. Daucus carota	20		UPL
3. Helianthus grosseserratus	20		FACW
4. Saponaria officinalis	10		FACU
5. Ambrosia trifida	5		FAC
6.			
7.			
8.			
9.			
10.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	15	x 3 =	45
FACU species	80	x 4 =	320
UPL species	20	x 5 =	100
Column Totals:	135 (A)		505 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Adjacent vegetation was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 2/1	100					Silt Loam	
8 - 16	10YR 2/2	100					Silty Clay Loam	
16 - 24	10YR 4/2	50	10YR 5/2	20	D	M	Silty Clay	
16 - 24			7.5YR 4/6	30	C	M	Silty Clay	
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T1C

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Closed Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.6428909 Long: -87.9461232 Datum: WGS 84

Soil Map Unit Name: Ashkum silty clay loam, 0-2% slopes NWI classification: PUSC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks:

Sample point is located within a depression in a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Amaranthus retroflexus	50	✔	FACU
2. Cyperus esculentus	30	✔	FACW
3. Echinochloa crus-galli	30	✔	FACW
4. Persicaria pensylvanica	30	✔	FACW
5. Panicum virgatum	20		FAC
6. Abutilon theophrasti	10		FACU
7. Setaria viridis	10		UPL
8.			
9.			
10.			
	180% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	10	x 5 =	50
Column Totals:	180 (A)		530 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ✔ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

No vegetation to review. Vegetation in a similar landscape position would be that encountered at test plot T1A. Based on geomorphology, and presence of hydric soil and primary hydrology indicators one would expect hydrophytic vegetation to dominate under normal conditions.

SOIL

Sampling Point: T1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 2/1	100					Silt Loam	
4 - 12	10YR 2/2	95	7.5YR 4/6	5	C	PL	Silt Loam	
12 - 28	10YR 2/1	100					Silt Loam	
28 - 34	10YR 4/2	95	7.5YR 4/6	5	C	M	Silty Clay Loam	
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✔ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with two primary and three secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T1D

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex

Slope (%): 0-1 Lat: 42.6433539 Long: -87.9461808 Datum: WGS 84

Soil Map Unit Name: Ashkum silty clay loam, 0-2% slopes NWI classification: PUSC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks:

Sample point is located within a slight rise in a larger closed depression in a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Amaranthus retroflexus	50	✔	FACU
2. Cyperus esculentus	30	✔	FACW
3. Echinochloa crus-galli	30	✔	FACW
4. Persicaria pensylvanica	30	✔	FACW
5. Panicum virgatum	20		FAC
6. Abutilon theophrasti	10		FACU
7. Setaria viridis	10		UPL
8.			
9.			
10.			
	180% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	10	x 5 =	50
Column Totals:	180 (A)		530 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ✔ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

No vegetation to review. Vegetation in a similar landscape position would be that encountered at test plot T1A. Based on geomorphology, and presence of hydric soil and primary hydrology indicators one would expect hydrophytic vegetation to dominate under normal conditions.

SOIL

Sampling Point: T1D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 2/1	100					Silt Loam	
20 - 26	10YR 4/1	60	10YR 5/1	20	D	M	Silty Clay	
20 - 26			7.5YR 4/6	20	C	M	Silty Clay	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): _____

Water Table Present? Yes ___ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with one primary and three secondary indicators.

Remarks:

Despite the area being on a slight rise, aerial images show the entire depression is inundated at times including this area and hydric soil is present, therefore it still is within a geoposition conducive to wetland formation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T1E

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Closed Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.6439128 Long: -87.9461959 Datum: WGS 84

Soil Map Unit Name: Ashkum silty clay loam, 0-2% slopes NWI classification: PUSC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks:

Sample point is located within a depression in a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Amaranthus retroflexus	50	✔	FACU
2. Cyperus esculentus	30	✔	FACW
3. Echinochloa crus-galli	30	✔	FACW
4. Persicaria pensylvanica	30	✔	FACW
5. Panicum virgatum	20		FAC
6. Abutilon theophrasti	10		FACU
7. Setaria viridis	10		UPL
8.			
9.			
10.			
	180% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	10	x 5 =	50
Column Totals:	180 (A)		530 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ✔ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

No vegetation to review. Vegetation in a similar landscape position would be that encountered at test plot T1A. Based on geomorphology, and presence of hydric soil and primary hydrology indicators one would expect hydrophytic vegetation to dominate under normal conditions.

SOIL

Sampling Point: T1E

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 2/1	100					Silt Loam	
20 - 30	N 2.5/	100					Silt Loam	
30 - 36	10YR 4/2	90	7.5YR 4/6	10	C	M	Silty Clay	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with one primary and three secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil | City/County: Somers/Kenosha | Sampling Date: 2022-09-09

Applicant/Owner: Excel | State: Wisconsin | Sampling Point: T2A

Investigator(s): Chad M Fradette | Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex

Slope (%): 3-4 | Lat: 42.6440186 | Long: -87.9470927 | Datum: WGS 84

Soil Map Unit Name: Markham silt loam, 2-6% slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa carolina	10	✔	FACU
2. Acer negundo	5	✔	FAC
3. Rhamnus cathartica	5	✔	FAC
4.			
5.			
	20% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus repens	60	✔	FACU
2. Daucus carota	20		UPL
3. Helianthus grosseserratus	20		FACW
4. Saponaria officinalis	10		FACU
5. Ambrosia trifida	5		FAC
6.			
7.			
8.			
9.			
10.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	15	x 3 =	45
FACU species	80	x 4 =	320
UPL species	20	x 5 =	100
Column Totals:	135 (A)		505 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in a similar landscape position was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 2/1	100					Silt Loam	
14 - 24	10YR 4/4	98	7.5YR 6/6	2	C	M	Silty Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

Hydrology is not met with only one secondary indicator.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3A

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 3-4 Lat: 42.6433403 Long: -87.9471359 Datum: WGS 84

Soil Map Unit Name: Markham silt loam, 2-6% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa carolina	10	✔	FACU
2. Acer negundo	5	✔	FAC
3. Rhamnus cathartica	5	✔	FAC
4.			
5.			
	20% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus repens	60	✔	FACU
2. Daucus carota	20		UPL
3. Helianthus grosseserratus	20		FACW
4. Saponaria officinalis	10		FACU
5. Ambrosia trifida	5		FAC
6.			
7.			
8.			
9.			
10.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	15	x 3 =	45
FACU species	80	x 4 =	320
UPL species	20	x 5 =	100
Column Totals:	135 (A)		505 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in a similar landscape position was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T3A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 10	10YR 2/2	100					Silt Loam	
10 - 24	10YR 4/4	100					Silty Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3B

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 3-4 Lat: 42.6431923 Long: -87.9476344 Datum: WGS 84

Soil Map Unit Name: Markham silt loam, 2-6% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Elaeagnus umbellata	5	✔	UPL
2.			
3.			
4.			
5.			
	5% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	60	✔	FAC
2. Cirsium arvense	20		FACU
3. Daucus carota	20		UPL
4. Solidago altissima	10		FACU
5. Sonchus arvensis	5		FACU
6.			
7.			
8.			
9.			
10.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	35	x 4 =	140
UPL species	25	x 5 =	125
Column Totals:	120 (A)		445 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in a similar landscape position was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T3B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 13	10YR 2/2	100					Silt Loam	
13 - 24	10YR 4/4	100					Silty Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

Hydrology is not met with only one secondary indicator.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3C

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.6430689 Long: -87.9478892 Datum: WGS 84

Soil Map Unit Name: Markham silt loam, 2-6% slopes, eroded NWI classification: PUSC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

Sample point is located within a wet meadow with a small shallow marsh in the center. Wetland boundary marked at change in soil and topography.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Phalaris arundinacea	40	✔	FACW
2. Typha X glauca	40	✔	OBL
3. Phragmites australis	15		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		150 (B)

Prevalence Index = B/A = 1.6

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: T3C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 2/1	95	7.5YR 4/6	5	C	M	Silt Loam	
12 - 20	10YR 2/1	100					Silt Loam	
20 - 26	10YR 5/1	95	7.5YR 4/6	5	C	M	Silty Clay	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with one primary and three secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3D

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave

Slope (%): 0-2 Lat: 42.6425373 Long: -87.9479455 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks:

Sample point is located within an excavated roadside ditch. This portion appears to have been excavated in an upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10*100 ft r)			
1. Populus deltoides	1		FAC
2.			
3.			
4.			
5.			
	1% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Phalaris arundinacea	110	✔	FACW
2. Sonchus arvensis	5		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 110	x 2 =	220
FAC species 1	x 3 =	3
FACU species 5	x 4 =	20
UPL species 0	x 5 =	0
Column Totals: 116 (A)		243 (B)

Prevalence Index = B/A = 2.1

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: T3D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 2/1	100					Silt Loam	
8 - 24	10YR 5/1	80	7.5YR 4/6	20	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with one primary and two secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3E

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.6423602 Long: -87.9477994 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

Sample point is located within a wet meadow/cottonwood swamp. Wetland boundary marked at change in soil and topography.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Populus deltoides	30	✔	FAC
2. Salix discolor	5		FACW
3.			
4.			
5.			
	35% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	50	✔	FAC
2. Phalaris arundinacea	40	✔	FACW
3. Phragmites australis	15		FACW
4. Cirsium arvense	10		FACU
5. Typha X glauca	10		OBL
6.			
7.			
8.			
9.			
10.			
	125% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	60	x 2 =	120
FAC species	80	x 3 =	240
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	160 (A)		410 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: T3E

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
-								
0 - 22	10YR 2/1	100					Silt Loam	
22 - 30	10YR 5/1	95	7.5YR 4/6	5	C	M	Silty Clay	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with three secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3F

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 2-3 Lat: 42.6423603 Long: -87.9477994 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Elaeagnus umbellata	5	✔	UPL
2.			
3.			
4.			
5.			
	5% = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	60	✔	FAC
2. Cirsium arvense	20		FACU
3. Daucus carota	20		UPL
4. Solidago altissima	10		FACU
5. Sonchus arvensis	5		FACU
6.			
7.			
8.			
9.			
10.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	35	x 4 =	140
UPL species	25	x 5 =	125
Column Totals:	120 (A)		445 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in a similar landscape position was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T3F

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	10YR 2/2	100					Silt Loam	
15 - 24	10YR 4/4	100					Silty Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

Hydrology is not met with only one secondary indicator.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T3G

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Convex

Slope (%): 1-2 Lat: 42.6419539 Long: -87.9478516 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within an excavated roadside ditch. This portion appears to have been excavated in an upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10*100 ft r)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	40	✔	FAC
2. Schedonorus arundinaceus	30	✔	FACU
3. Solidago altissima	30	✔	FACU
4. Phalaris arundinacea	20		FACW
5. Cirsium arvense	10		FACU
6. Symphyotrichum lanceolatum	5		FAC
7.			
8.			
9.			
10.			
	135% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	45	x 3 =	135
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	135 (A)		455 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: T3G

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 2/1	100					Silt Loam	
20 - 26	10YR 4/2	90	7.5YR 4/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T4A

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 1-3 Lat: 42.6418494 Long: -87.9475168 Datum: WGS 84

Soil Map Unit Name: Ozaukee silt loam, 2-6% slopes, eroded NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	40	✔	FAC
2. Schedonorus arundinaceus	30	✔	FACU
3. Solidago altissima	30	✔	FACU
4. Cirsium arvense	10		FACU
5. Daucus carota	10		UPL
6. Elymus repens	10		FACU
7.			
8.			
9.			
10.			
	130% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	80	x 4 =	320
UPL species	10	x 5 =	50
Column Totals:	130 (A)		490 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in a similar landscape position was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T4A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 2/2	100					Silt Loam	
10 - 24	10YR 4/4	100					Silty Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T4B

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Closed Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.6415270 Long: -87.9473084 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks:

Sample point is located within a depression in a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Amaranthus retroflexus	50	✔	FACU
2. Cyperus esculentus	30	✔	FACW
3. Echinochloa crus-galli	30	✔	FACW
4. Persicaria pensylvanica	30	✔	FACW
5. Panicum virgatum	20		FAC
6. Abutilon theophrasti	10		FACU
7. Setaria viridis	10		UPL
8.			
9.			
10.			
	180% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	10	x 5 =	50
Column Totals:	180 (A)		530 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ✔ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

No vegetation to review. Vegetation in a similar landscape position would be that encountered at test plot T1A. Based on geomorphology, and presence of hydric soil and primary hydrology indicators one would expect hydrophytic vegetation to dominate under normal conditions.

SOIL

Sampling Point: T4B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 2/1	100					Silt Loam	
14 - 24	10YR 3/1	95	7.5YR 4/6	5	C	M	Silty Clay Loam	
24 - 30	10YR 4/1	90	7.5YR 4/6	10	C	M	Silty Clay	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology is met with three secondary indicators.

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: KEN22-016 Golden Oil City/County: Somers/Kenosha Sampling Date: 2022-09-09

Applicant/Owner: Excel State: Wisconsin Sampling Point: T5A

Investigator(s): Chad M Fradette Section, Township, Range: Sec 7-T2N-R22E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 1-3 Lat: 42.6408129 Long: -87.9470120 Datum: WGS 84

Soil Map Unit Name: Elliott silt loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	
Hydric Soil Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point is located within a cropped field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Bromus inermis	90	✔	FACU
2. Sonchus arvensis	20		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110% = Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	110 (A)		440 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in a similar landscape position was reviewed. Problematic vegetation protocol used. Based on the dominance of upland vegetation in a similar landscape position, convex hillslope, and lack of hydric soil and hydrology indicators one would expect upland vegetation to dominate under normal conditions.

SOIL

Sampling Point: T5A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 2/1	100					Silt Loam	
14 - 18	10YR 4/3	100					Silty Clay	
18 - 24	10YR 4/2	95	7.5YR 4/6	5	C	M	Silty Clay	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No saturation or groundwater observed to 24 inches.

Remarks:

Hydrology is not met with only one secondary indicator.

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

Regulatory File No. 2022-02063-MWM

Evergreen Consultants LLC
Shyann Banker
Post Office Box 680
Pulaski, Wisconsin 54162

Dear Ms. Banker:

This letter regards an approved jurisdictional determination for Wetlands 2, 3, and 4 on the Golden Oil, Somers Marketplace site. The project site is in Section 7, Township 2 North, Range 22 East, Kenosha County, Wisconsin. The review area for our jurisdictional determination is identified on the enclosed figures, labeled 2022-02063-MWM Figure 1 of 1 through 2 of 2.

The review area contains no waters of the United States subject to Corps of Engineers (Corps) jurisdiction. Therefore, you are not required to obtain Department of the Army authorization to discharge dredged or fill material within this area. The rationale for this determination is provided in the enclosed Approved Jurisdictional Determination form. This determination is only valid for the review area described. You are also cautioned that the area of waters described on the enclosed Jurisdictional Determination form is approximate and is not based on a precise delineation of aquatic resources.

If you object to this approved jurisdictional determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the address shown on the form.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the enclosed NAP. It is not necessary to submit an RFA form to the division office if you do not object to the determination in this letter

This approved jurisdictional determination may be relied upon for five years from the date of this letter. However, the Corps reserves the right to review and revise the determination in response to changing site conditions, information that was not considered during our initial review, or off-site activities that could indirectly alter the extent of wetlands and other resources on-site. This determination may be renewed at the end of the five year period provided you submit a written request and our staff are able to verify that the limits established during the original determination are still accurate.

Regulatory Branch (File No. 2022-02063-MWM)

If you have any questions, please contact Morgan Wirth-Murray in our Brookfield office at (651) 290-5855 or Morgan.M.Wirth-Murray@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

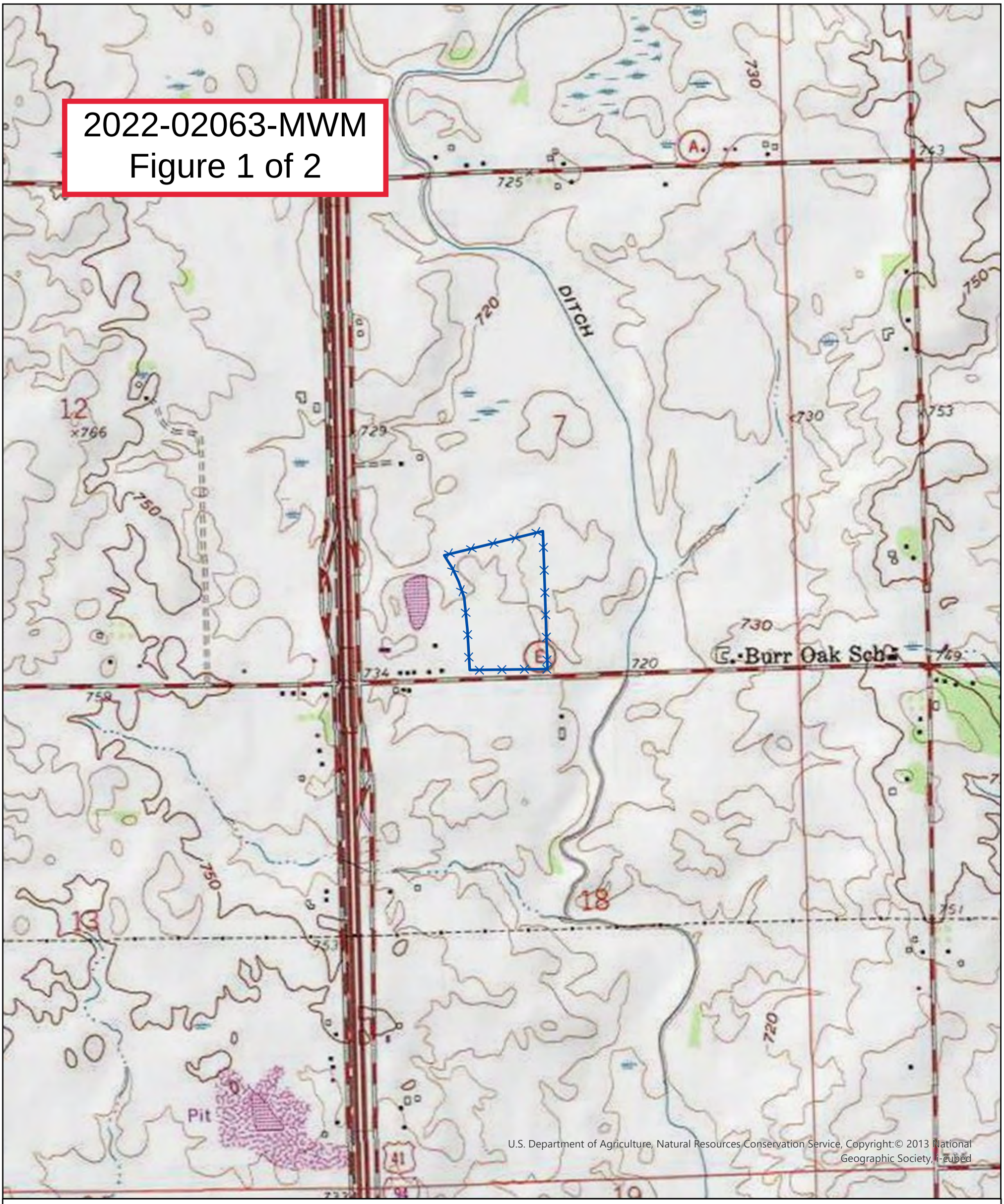
Sincerely,

Joey Shoemaker
Chief, Wisconsin East Branch

Enclosures

cc: Ryan Pappas, Wisconsin Department of Natural Resources

2022-02063-MWM
Figure 1 of 2



Golden Oil- Somers Marketplace
Quadrangle Map
12th Street
Village of Somers
Kenosha County, WI

Legend

Site Boundary

N
W E
S

Project: KEN22-016-01

0 500 1,000 2,000 Feet

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

2022-02063-MWM
Figure 2 of 2

Wetland 1
31,976 sq.ft.

Wetland 2
82,832 sq.ft.

Wetland 3
4,698 sq.ft.

Wetland 4
27,409 sq.ft.

T1A
T1B
T1C
T1D
T1E
T2A
T3A
T3C
T3D
T3E
T3F
T3G
T4A
T4B
T5A

AJD Review Area

SWRPC, Maxar, Microsoft

Golden Oil- Somers Marketplace
Wetland Delineation Map
12th Street
Village of Somers
Kenosha County, WI

Project: KEN22-016-01

Legend

- Site Boundary
- Wetland Line
- Wetland
- Parcels
- Picture Location
- Sample Point

Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Specialist

0 75 150 300
Feet

N
W E
S

evergreen consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 18, 2023

B. ST PAUL, MN DISTRICT OFFICE, FILE NAME, AND NUMBER: MVP-2022-02063-MWM 12th Street Somers, Wetland 2, 3, and 4.

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Wisconsin County/parish/borough: Kenosha City: Village of Somers

Center coordinates of site (lat/long in degree decimal format): Lat. 42.6439° **N**, Long. -87.9462° **E**.

Universal Transverse Mercator: 16

Name of nearest waterbody: Kilbourn Road Ditch (WBIC 736900)

Name of watershed or Hydrologic Unit Code (HUC): 712000401

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: December 19, 2022

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are no "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are no "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. **Waters of the U.S.:** N/A

2. **Non-regulated waters/wetlands (check if applicable):**[1]

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **The review area contains 3 aquatic resources (labeled as Wetland 2, Wetland 3 and Wetland 4 on figure) that are isolated wetlands with no surface or shallow subsurface connection to any waters of the U.S. including the nearest aquatic resource which is the Kilbourn Road Ditch located approximately 900 feet to the east.**

Wetland 2, 82,832 square feet, is located in the northeast portion of the site, in a defined topographic depression. Although the wetland boundary continues offsite to the north, the wetland delineation mapped the entire wetland boundary. Aerial photos from 2007, 2011, 2015, 2016, 2017, 2018, 2019 and 2020 do not show a wetness signature continuing past the wetland boundary. Lidar (Wisconsin DNR's Hillshade and DEM layer) accessed on the National Regulatory Viewer (NRV) does not show a confined topographic feature from the wetland that could offer a surface connection to a downstream TNW. There are no culverts or similar structures within the wetland.

Wetland 3, 4,698 square feet, is located in the southwest portion of the site, the boundary is completely confined within the site, in a topographic low. The wetland boundary is approximately 100 feet east of 120th Avenue, Wetland 3 does not have a connection to an associated roadside ditch. In most years, a wetness signature is not evident in aerial photos. In the years a wetness signature can be seen (2015 and 2020) the signature does not exceed the boundary of the wetland. Lidar images on NRV do not show a confined feature from the wetland to a downstream TNW. There are no culverts or similar structures within the wetland.

[1] Supporting documentation is presented in Section III.F.

Wetland 4, 27,409 square feet, is located on the east-central boundary of the site, continuing beyond the site boundary. Similarly, to Wetland 2, the entire wetland boundary was mapped on the wetland delineation although it leaves the site. Topography maps show the wetland boundary matches the topographic change of the landscape. In recent years (2008, 2010, 2011, 2014, 2015, 2016, 2017, 2018, and 2019) aerial photos do not show wetness signatures leaving the boundary of the wetland. Additionally, in a review of Lidar images on NRV, there is not a confined surface connection that could offer a surface connection to a downstream TNW.

These wetlands do not border, neighbor, nor are contiguous with another water of the U.S. They are not separated from other waters of the United States (WOUS) by man-made dikes, barriers, or berms. The surrounding land use consists of agriculture fields with minor residential development. Due to their size, Wetland 2, 3 and 4 provides limited habitat functions to WOUS and surrounding areas and provides no ecological connection.

These aquatic resources do not support a link to interstate foreign commerce; are not known to be used by interstate or foreign travelers for recreation or other purposes; do not produce fish or shellfish that could be taken and sold in interstate or foreign commerce; and are not known to be used for industrial purposes by industries in interstate commerce. Therefore, the Corps has determined these aquatic features are not regulated by the Corps under Section 404 of the Clean Water Act.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs: N/A

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY): N/A

C. SIGNIFICANT NEXUS DETERMINATION: N/A

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY): N/A

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY): N/A

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☒ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☒ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- ☐ Other (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: Wetland 2 (1.9 acres), Wetland 3 (0.11 acres) and Wetland 4 (0.63 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Wetland delineation completed by Evergreen Consultants LLC, on September 9, 2022.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- ☐ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps:

☐ Corps navigable waters' study:

☐ U.S. Geological Survey Hydrologic Atlas:
- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:Topographic map included in the referenced delineation.

☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soil Survey and Hydric Ratings map included in the referenced delineation.

☒ National wetlands inventory map(s). Cite name:National Wetland Inventory map included in the referenced delineation.

☒ State/Local wetland inventory map(s):Wisconsin Wetland Inventory map included in the referenced delineation.

☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☐ Aerial (Name & Date): Aerial photos from 1967, 1963, 1970, 1975, 1980-2002, 2004-2008, 2010, 2011, 2013-2021 included in the referenced delineation.

or ☒ Other (Name & Date): Ground level photos included in the referenced delineation.

☐ Previous determination(s). File no. and date of response letter:

☐ Applicable/supporting case law:

☐ Applicable/supporting scientific literature:

☒ Other information (please specify): National Regulatory Viewer: Wisconsin DNR's Hillshade and DEM layer.

B. ADDITIONAL COMMENTS TO SUPPORT JD: N/A

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Shyann Banker, Evergreen Consultants LLC.	**File No.: MVP-2022-02063-MWM**	**Date:** January 18, 2023

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

U.S. Army Corps of Engineers
Attn: Morgan Wirth-Murray
250 N Sunnyslope Road Suite 296
Brookfield, Wisconsin 53005

If you only have questions regarding the appeal process you may also contact the Division Engineer through:

Administrative Appeals Review Officer
Mississippi Valley Division
P.O. Box 80 (1400 Walnut Street)
Vicksburg, MS 39181-0080
601-634-5820 FAX: 601-634-5816

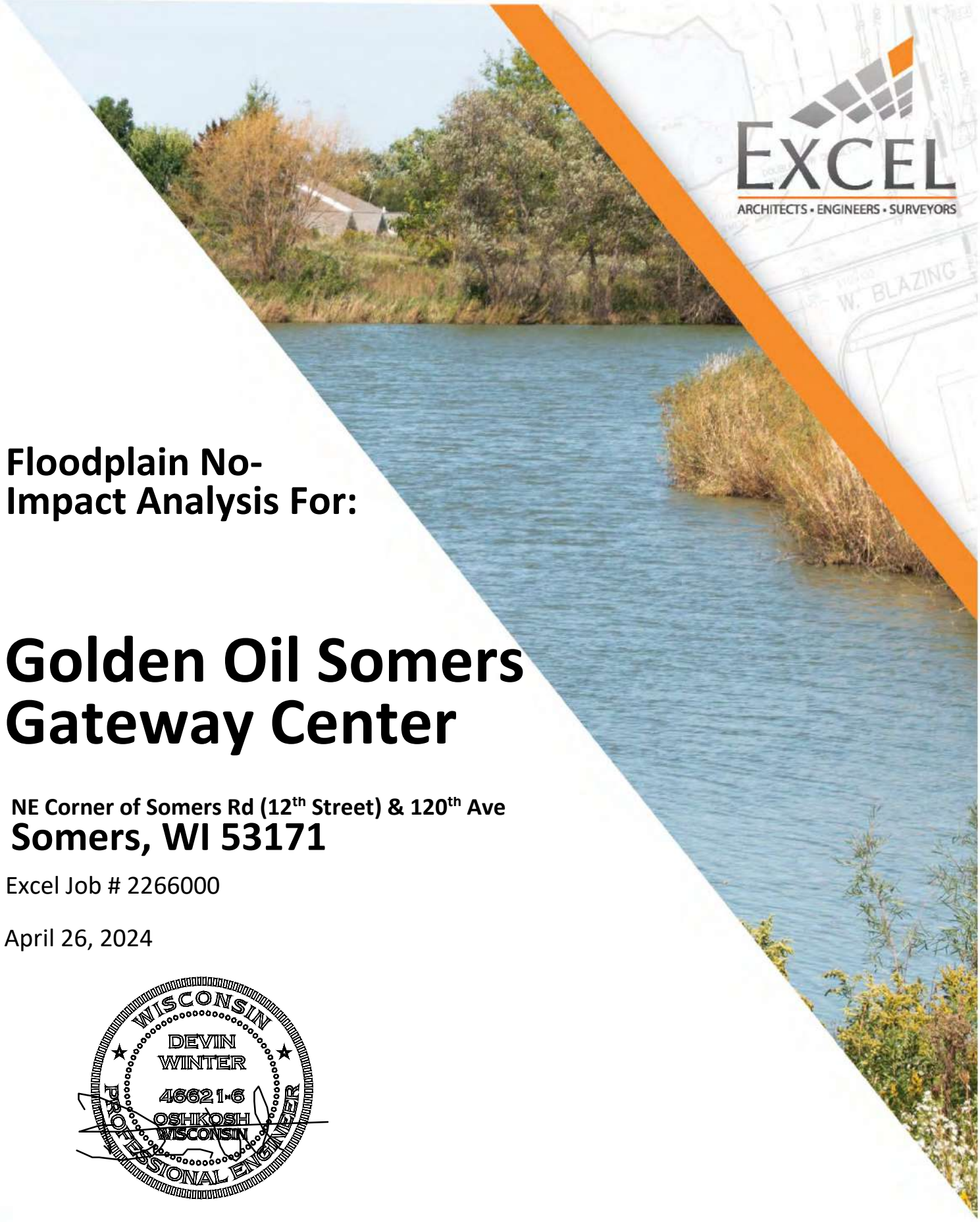
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

Appendix M: Post Construction Operation and Maintenance Plan

The owner of the property affected shall inspect and maintain the following stormwater management systems frequently, especially after heavy rainfalls, but at least on an annual basis unless otherwise specified.	
STORMWATER FACILITY	**TYPE OF ACTION**
1. Lawn and Landscaped Areas	All lawn areas shall be kept clear of any materials that block the flow of stormwater. Rills and small gullies shall immediately be filled and seeded or have sod placed in them. The lawn shall be kept mowed, tree seedlings shall be removed, and litter shall be removed from landscaped areas.
2. Swales	All grassed swales showing signs of erosion, scour, or channelization shall be repaired, reinforced, and revegetated immediately. All swales shall be repaired to the original plan requirements. Mowing shall take place no less than twice per year at a height of no less than three inches. Grasses shall not be allowed to grow to a height that permits branching or bending. Mowing shall only take place when the ground is dry and able to support machinery.
3. Rip Rap	All rip rap showing signs of erosion or scour shall be repaired, reinforced, and revegetated immediately. Rip rap should be kept clean of vegetation and sediment. All rip rap shall be repaired to the construction plan requirements.
4. Catch Basin/Curb Inlet Grates	The grate openings to these structures must be cleared of any clogging or the blocking of stormwater flow from getting into the stormwater conveyance system of any kind.
5. Retention/Detention Basins	Trash racks, standpipes, outlet structures, inlet and outlet pipes, and anti vortex devices shall be kept clear of debris. Non-structurally sound devices shall be replaced. Floating litter and algae shall be removed monthly. All grassed areas, embankments, and flow control devices showing signs of erosion shall be repaired, reinforced, and revegetated immediately to the original plan requirements. Dry basins shall be mowed no less than twice per year at a height of no less than 3 inches. Grasses shall not be allowed to grow to a height that permits branching or bending. Mowing shall only take place when the ground is dry and able to support machinery. Every 5 years, beginning in the summer of 2024, the elevations of the pond bottom shall be surveyed to determine the permanent pool depth and sediment depth in the pond. When silt has accumulated three feet from the original design depth elevation of the pond, the pond shall be cleaned out and restored back to the original design depth of a minimum of 5' from the normal water elevation. Cleaning, removal, and deposit of silt from the detention pond shall be done by means and

	methods acceptable to the Wisconsin Department of Natural Resources.
6. Flo-Gard + Plus Filter Insert (or equal)	Maintenance shall be in accordance with the manufacturers guidelines, which at a minimum shall be 3 inspections per year, 3 cleanings per year, and 1 filter replacement per year. More specifically, debris shall be removed and the filter medium shall be replaced any time the filter medium appears to be 50% coated with oil and grease.
7. Record of Maintenance	The operation and maintenance plan shall remain onsite and be available for inspection when requested by WDNR & Village of Somers. When requested, the owner shall make available for inspection all maintenance records to the department or agent for the life of the system.



EXCEL
ARCHITECTS • ENGINEERS • SURVEYORS

Floodplain No-Impact Analysis For:

Golden Oil Somers Gateway Center

NE Corner of Somers Rd (12th Street) & 120th Ave
Somers, WI 53171

Excel Job # 2266000

April 26, 2024

WISCONSIN
DEVIN WINTER
46621-6
OSHKOSH WISCONSIN
PROFESSIONAL ENGINEER

Prepared by Devin Winter, PE
100 Camelot Drive • Fond du Lac, WI 54935
920-926-9800 • www.excelengineer.com

Table of Contents

0.0 Introduction _____ 1

0.1 Purpose _____ 1

0.2 Project Information _____ 1

1.0 Study Inputs & Methodology _____ 1

2.0 Modeling & Results _____ 2

2.1 Corrected Effective Model _____ 2

2.2 Pre Proposed Model _____ 2

2.3 Post Proposed Model _____ 2

3.0 Results & Conclusion _____ 3

Appendices

Appendix A: Corrected Effective HEC RAS Exhibit

Appendix B: Pre Proposed HEC RAS Exhibit

Appendix C: Post Proposed HEC RAS Exhibit

Appendix D: FEMA Firmette 55059C0064D dated June 19, 2012

Appendix E: Modeling Output

Appendix F: Supplementary Information

0.0 Introduction

0.1 Purpose

The purpose of this study is to determine if there are impacts to the 100-year floodplain elevations that result in an increase of ≥0.01' as a result of the proposed site improvements.

0.2 Project Information

Somers Gateway Center, LLC is proposing to construct a four (4) lot development at the northeast corner of Somers Rd (CTH E/12th Street) and 120th Rd (E. Frontage Rd) in the Village of Somers, Wisconsin. Agricultural farmland is located north and east of the project site. The proposed project is to expand their existing operations by constructing a convenience store and fueling station with two (2) quick serve restaurant on Lot 1 that will meet their customer demands, future uses on Lot 2 and Lot 3, and a hotel on Lot 4. The proposed project includes anticipated lot coverage of 85% per code allowances and stormwater management has been designed in conjunction. The proposed site is 25 acres in size. The total site disturbance will impact approximately twenty-six (26) acres. Project construction of Lot 1 and Lot 4 is expected to begin in December of 2024 and conclude in late 2025. Construction of Lots 2 and 3 is anticipated in the next 5-10 years. The Kilbourn Road Ditch is located +/-1,000 ft east of the project site with floodplain extending onto the property based on the FEMA Firmette Map Number 55059C0064D (See Appendix D). The project is proposed to fill the areas of floodplain on site as part of the project. An assured wetland delineation was completed by Evergreen Consultants, LLC in September of 2022. Wetland 2, 3, and 4 are confirmed by the US Army Corps of Engineers to be non-jurisdictional. Wetland permitting of these wetland areas will be completed and approved separately as part of the project.

1.0 Study Inputs & Methodology

The Village of Somers, per their floodplain ordinance, has requested that a hydraulic study be completed of the Kilbourn Road Ditch and associated floodplain be updated to ensure that there will not be ≥ 0.1' increase in the existing floodplain elevation within the study area. The location of the floodplain on site would traditionally be considered flood fringe area. Based on the current ordinance, floodplain is not defined between floodway and flood fringe and therefore a hydraulic study is required for any impacts to the currently mapped floodplain.

Excel Engineering, Inc obtained the existing model (Analysis 11159) of the Kilbourn Road Ditch from the Wisconsin DNR's Surface Water Data Viewer (SWDV) to utilize as baseline model. Analysis 20903 – Encroachment Analysis was noted on the SWDV site but was not able to be provided by the DNR as the analysis was still in review. HEC RAS 5.0.7 was utilized for analysis of the floodplain impacts. See Appendix F for additional information for the floodplain modeling.

2.0 Modeling & Results

2.1 Corrected Effective Model

Excel Engineering, Inc reviewed the HEC RAS input file (Analysis 11159) that was found to contain errors as a result of a conversion from HEC-2 modeling to HEC RAS modeling. The errors were corrected as recommended in HEC RAS program to create as an acceptable model that a steady flow analysis could be modeled without errors. See Appendix A.

2.2 Pre Proposed Model

Excel Engineering, Inc reviewed the Corrected Effective Model for inputs, cross sections, and outputs and compared to the flood elevations at the approved cross sections within the FEMA Firmette 55059C0064D, dated June 19, 2012 (See Appendix D). The steady flow data was found to be roughly 10% of the provided flows within the current Flood Insurance Study, Volume 1 of 3, for Kenosha County, Wisconsin - Revised April 11, 2024; Flood Insurance Study Number 55059CV001C. Version Number 2.8.2.1 (See Appendix F). The result of the low flow included in the original model was flood elevations roughly four (4) feet lower than the approved FIS study indicates. Below are the updates provided to the Corrected Effective model to more accurately reflect the currently approved flood elevations.

1. Revised the steady flow data to reflect the approved peak discharge flow and locations approved within the FIS Number 55059CV001C (See Appendix F).
2. Update the modeling cross sections based on Kenosha County contour from Somers RD (12th Street/CTH E) to cross section 9.189 (7th Street) roughly 4,000 ft upstream.
3. Added cross sections upstream, through, and downstream of the proposed development project impacts as existing conditions. Contour data outside of the project site was obtained from Kenosha County. Contour data internal to the site was updated from the existing conditions field survey completed by Excel Engineering, Inc for design of the project. See Appendix B.

The results of the pre proposed model provided flood elevations near the project site (between cross section AW and AX) can be seen in below:

FIS CROSS SECTION	FIS FLOOD ELEVATION (FT)	PRE PROPOSED FLOOD ELEVATION (FT)	DIFFERENCE (FT)
AV (7.938)	718.2	718.48	0.28
AW (8.158)	719.1	719.18	0.08
AX (8.536)	719.3	719.24	0.06
AY (9.06)	719.8	720.09	0.29

2.3 Post Proposed Model

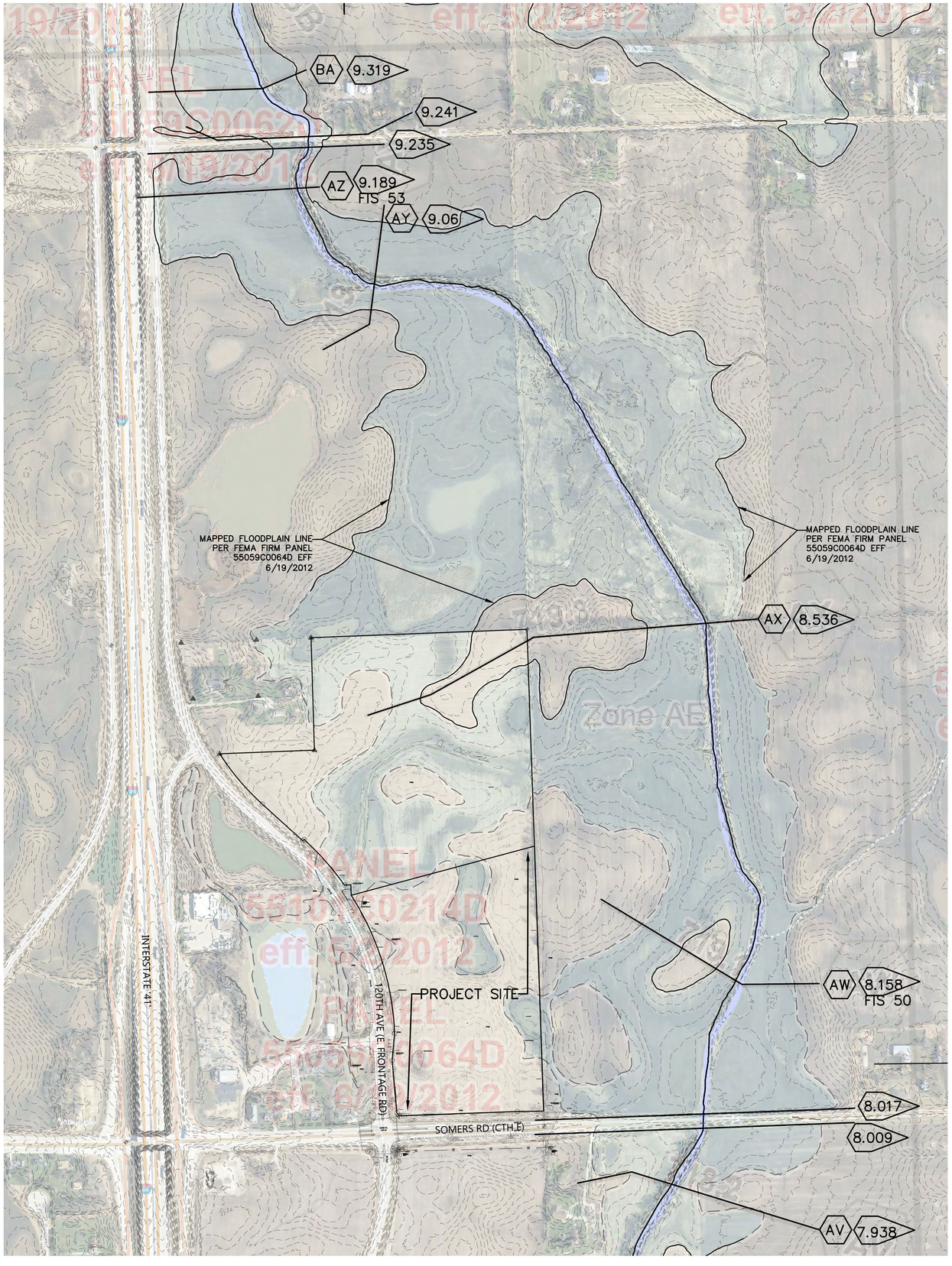
Excel Engineering, Inc updated the Pre Proposed Model of the cross sections proposed for the filling of the floodplain as proposed with the development to determine if there are impacts to the 100-year floodplain. No new cross sections or additional information was provided in the Post Project Model. See Appendix C.

3.0 Results & Conclusion

HEC RAS modeling results were reviewed and no changes to the floodplain elevations were found as a result of the proposed improvements. See Appendix E.

Therefore, it is determined that there are no impacts to the floodplain elevations as a result of filling the areas on site of the floodplain that increase the flood elevations by ≥0.01'.

Appendix A: Corrected Effective HEC RAS Exhibit



LEGEND:

XX X.XXX EXISTING CROSS SECTION / MODEL SECTION

X.XX ADDED CROSS SECTION

NORTH

1"= 250' SCALE 250' 0 250' 500' (AT 30X42 SHEET SIZE) FEET

CORRECTED EFFECTIVE FLOODPLAIN EXHIBIT

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller

PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS MARKET

SOMERS WISCONSIN

"COPYRIGHT NOTICE"

This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APRIL 26, 2024

PROJECT MANAGER: N. LAURENT

DESIGNER: R. LINDSTROM

DRAWN BY: EXCEL ENGINEERING

EXPEDITOR: --------

SUPERVISOR: --------

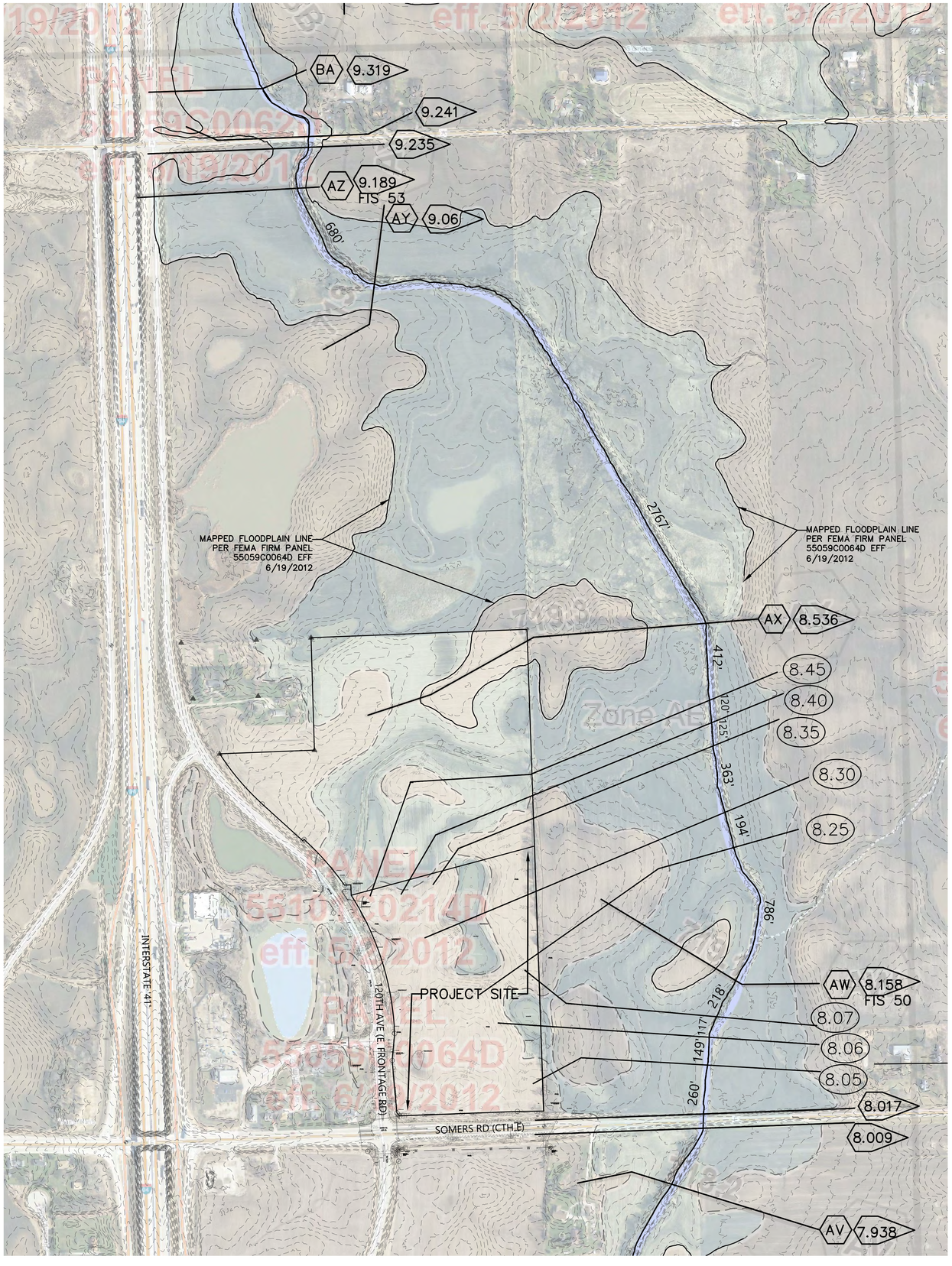
PRELIMINARY NO: P22188

CONTRACT NO: --------

DATE: --------

SHEET: CEE

Appendix B: Pre Proposed HEC RAS Exhibit



LEGEND:

XX X.XXX — EXISTING CROSS SECTION / MODEL SECTION

X.XX — ADDED CROSS SECTION

Keller

PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710
1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS MARKET

SOMERS WISCONSIN

"COPYRIGHT NOTICE"

This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APRIL 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE:
SHEET: PRE

NORTH

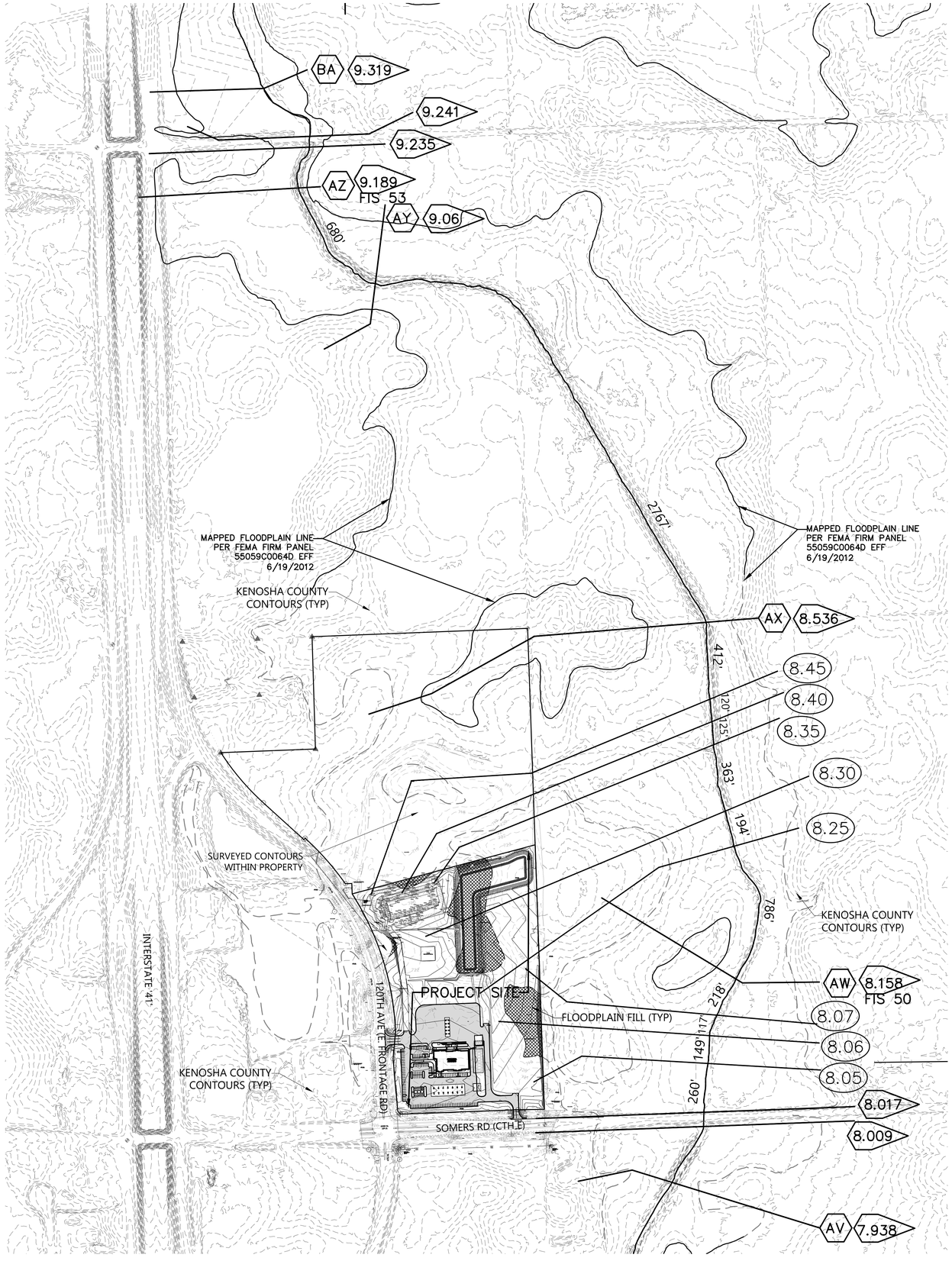
1"= 250' SCALE (AT 30X42 SHEET SIZE) 250' 0 250' 500' FEET

PRE-PROPOSED FLOODPLAIN EXHIBIT

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Appendix C: Post Proposed HEC RAS Exhibit



NORTH

1" = 250' SCALE (AT 30X42 SHEET SIZE) 250' 0 250' 500' FEET

POST-PROPOSED FLOODPLAIN EXHIBIT

EXCEL JOB #: 2266000

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
3308 Nursery Drive
Middleton, WI 53562
PHONE (608) 445-2245

MILWAUKEE
W204 N11509
Goldendale Rd
Germantown, WI 53022
PHONE (262) 250-9710 / 1-800-236-2534
FAX (262) 250-9740

WAUSAU
5605 Lilac Ave
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED DEVELOPMENT FOR:

GOLDEN OIL - SOMERS MARKET

SOMERS WISCONSIN

"COPYRIGHT NOTICE"
This design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

PRELIMINARY PLAN DATE
APRIL 26, 2024

PROJECT MANAGER: N. LAURENT
DESIGNER: R. LINDSTROM
DRAWN BY: EXCEL ENGINEERING
EXPEDITOR:
SUPERVISOR:
PRELIMINARY NO: P22188
CONTRACT NO:
DATE: APR. 26, 2024
SHEET: POST

Appendix D: FEMA Firmette 55059C0064D dated June 19, 2012

87°58'7.95"W 42°39'29.12"N

87°56'14.59"W 42°37'23.44"N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **2/14/2024 9:53 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: NAVD88

For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

1 inch = 500 feet 1:6,000

0 250 500 1,000 1,500 2,000 Feet

N

0 50 100 200 300 400 Meters

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

PANEL 64 OF 331

Panel Contains:

COMMUNITY	NUMBER	PANEL
KENOSHA COUNTY	550523	0064
VILLAGE OF SOMERS	550406	0064

MAP NUMBER
55059C0064D
EFFECTIVE DATE
June 19, 2012

Appendix E: Modeling Output

HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1

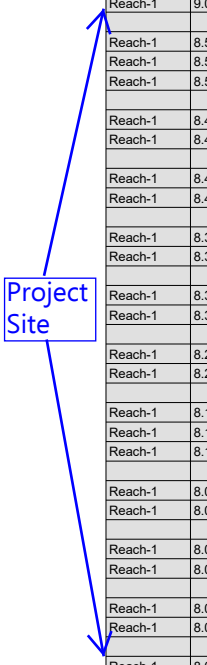
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	12.641	PF 1	Corrected Eff	69.00	727.40	734.01	730.42	734.04	0.000760	1.45	56.82	116.71	0.12
Reach-1	12.641	PF 1	Pre-Proposed	50.00	727.40	732.94	730.05	732.97	0.001167	1.49	35.29	16.12	0.15
Reach-1	12.641	PF 1	Post Project	50.00	727.40	732.94	730.05	732.97	0.001167	1.49	35.29	16.12	0.15
Reach-1	12.63	PF 1	Corrected Eff	69.00	727.40	733.94	729.70	733.99	0.000597	2.12	45.96	13.00	0.15
Reach-1	12.63	PF 1	Pre-Proposed	50.00	727.40	732.77	729.26	732.88	0.001225	2.66	18.80	9.18	0.20
Reach-1	12.63	PF 1	Post Project	50.00	727.40	732.77	729.26	732.88	0.001225	2.66	18.80	9.18	0.20
Reach-1	12.6275			Culvert									
Reach-1	12.625	PF 1	Corrected Eff	69.00	727.40	732.99	729.70	733.19	0.002039	3.52	19.58	9.41	0.26
Reach-1	12.625	PF 1	Pre-Proposed	50.00	727.40	732.19	729.26	732.33	0.001794	2.98	16.77	8.57	0.24
Reach-1	12.625	PF 1	Post Project	50.00	727.40	732.19	729.26	732.33	0.001794	2.98	16.77	8.57	0.24
Reach-1	12.525	PF 1	Corrected Eff	69.00	727.50	732.88		732.89	0.000155	0.78	94.54	29.46	0.07
Reach-1	12.525	PF 1	Pre-Proposed	50.00	727.50	732.03		732.04	0.000187	0.73	71.08	25.47	0.07
Reach-1	12.525	PF 1	Post Project	50.00	727.50	732.03		732.04	0.000187	0.73	71.08	25.47	0.07
Reach-1	12.455	PF 1	Corrected Eff	69.00	727.50	732.78		732.80	0.000399	1.18	65.51	24.57	0.10
Reach-1	12.455	PF 1	Pre-Proposed	50.00	727.50	731.90		731.92	0.000559	1.19	45.76	20.33	0.12
Reach-1	12.455	PF 1	Post Project	50.00	727.50	731.90		731.92	0.000559	1.19	45.76	20.33	0.12
Reach-1	12.395	PF 1	Corrected Eff	69.00	727.30	732.70		732.71	0.000206	0.88	83.98	26.21	0.08
Reach-1	12.395	PF 1	Pre-Proposed	50.00	727.30	731.79		731.80	0.000272	0.85	61.36	23.44	0.08
Reach-1	12.395	PF 1	Post Project	50.00	727.30	731.79		731.80	0.000272	0.85	61.36	23.44	0.08
Reach-1	12.361	PF 1	Corrected Eff	69.00	727.10	732.41	729.25	732.58	0.001914	3.28	21.05	17.50	0.25
Reach-1	12.361	PF 1	Pre-Proposed	50.00	727.10	731.54	728.84	731.66	0.001845	2.85	17.55	15.26	0.24
Reach-1	12.361	PF 1	Post Project	50.00	727.10	731.54	728.84	731.66	0.001845	2.85	17.55	15.26	0.24
Reach-1	12.358			Culvert									
Reach-1	12.355	PF 1	Corrected Eff	69.00	727.10	731.81	729.25	732.02	0.002879	3.70	18.63	15.94	0.30
Reach-1	12.355	PF 1	Pre-Proposed	50.00	727.10	731.26	728.83	731.40	0.002298	3.04	16.43	14.54	0.26
Reach-1	12.355	PF 1	Post Project	50.00	727.10	731.26	728.83	731.40	0.002298	3.04	16.43	14.54	0.26
Reach-1	12.248	PF 1	Corrected Eff	73.00	727.20	730.45		730.51	0.002264	2.05	38.22	21.16	0.23
Reach-1	12.248	PF 1	Pre-Proposed	50.00	727.20	729.92		729.97	0.002598	1.89	28.04	17.62	0.24
Reach-1	12.248	PF 1	Post Project	50.00	727.20	729.92		729.97	0.002598	1.89	28.04	17.62	0.24
Reach-1	12.163	PF 1	Corrected Eff	73.00	726.80	730.04		730.06	0.000555	1.16	69.54	37.48	0.12
Reach-1	12.163	PF 1	Pre-Proposed	50.00	726.80	729.48		729.50	0.000563	1.01	52.42	28.89	0.12
Reach-1	12.163	PF 1	Post Project	50.00	726.80	729.48		729.50	0.000563	1.01	52.42	28.89	0.12
Reach-1	11.992	PF 1	Corrected Eff	73.00	725.90	729.50		729.53	0.000622	1.45	57.12	21.73	0.13
Reach-1	11.992	PF 1	Pre-Proposed	50.00	725.90	728.98		729.00	0.000532	1.21	46.31	20.05	0.12
Reach-1	11.992	PF 1	Post Project	50.00	725.90	728.98		729.00	0.000532	1.21	46.31	20.05	0.12
Reach-1	11.93	PF 1	Corrected Eff	73.00	725.60	729.29	726.66	729.32	0.000643	1.46	49.86	185.09	0.14
Reach-1	11.93	PF 1	Pre-Proposed	50.00	725.60	728.82	726.46	728.84	0.000484	1.16	43.27	138.84	0.12
Reach-1	11.93	PF 1	Post Project	50.00	725.60	728.82	726.46	728.84	0.000484	1.16	43.27	138.84	0.12
Reach-1	11.9265			Bridge									
Reach-1	11.923	PF 1	Corrected Eff	73.00	725.60	729.24	726.68	729.28	0.000670	1.48	49.25	180.48	0.14
Reach-1	11.923	PF 1	Pre-Proposed	50.00	725.60	728.78	726.46	728.81	0.000500	1.17	42.84	135.86	0.12
Reach-1	11.923	PF 1	Post Project	50.00	725.60	728.78	726.46	728.81	0.000500	1.17	42.84	135.86	0.12
Reach-1	11.885	PF 1	Corrected Eff	73.00	725.40	729.07		729.10	0.001206	1.51	60.74	56.51	0.16
Reach-1	11.885	PF 1	Pre-Proposed	50.00	725.40	728.62		728.65	0.001350	1.46	39.21	38.07	0.17
Reach-1	11.885	PF 1	Post Project	50.00	725.40	728.62		728.65	0.001350	1.46	39.21	38.07	0.17
Reach-1	11.717	PF 1	Corrected Eff	73.00	724.10	728.20		728.23	0.000825	1.45	71.93	103.70	0.14
Reach-1	11.717	PF 1	Pre-Proposed	50.00	724.10	727.71		727.73	0.000822	1.29	43.50	25.65	0.14
Reach-1	11.717	PF 1	Post Project	50.00	724.10	727.71		727.73	0.000822	1.29	43.50	25.65	0.14
Reach-1	11.55	PF 1	Corrected Eff	74.00	723.00	727.53		727.55	0.000725	1.33	65.93	41.77	0.13
Reach-1	11.55	PF 1	Pre-Proposed	50.00	723.00	727.00		727.02	0.000777	1.21	46.33	32.54	0.13
Reach-1	11.55	PF 1	Post Project	50.00	723.00	727.00		727.02	0.000777	1.21	46.33	32.54	0.13
Reach-1	11.346	PF 1	Corrected Eff	74.00	721.50	726.26	724.30	726.32	0.002054	2.25	40.14	23.21	0.21
Reach-1	11.346	PF 1	Pre-Proposed	50.00	721.50	725.66	723.90	725.72	0.002125	2.03	28.64	16.96	0.21
Reach-1	11.346	PF 1	Post Project	50.00	721.50	725.66	723.90	725.72	0.002125	2.03	28.64	16.96	0.21
Reach-1	11.294	PF 1	Corrected Eff	74.00	721.40	724.25	723.74	724.75	0.029336	5.67	13.06	7.38	0.68
Reach-1	11.294	PF 1	Pre-Proposed	50.00	721.40	723.75	723.31	724.14	0.030146	4.96	10.08	5.89	0.67
Reach-1	11.294	PF 1	Post Project	50.00	721.40	723.75	723.31	724.14	0.030139	4.96	10.08	5.89	0.67
Reach-1	11.29			Bridge									
Reach-1	11.286	PF 1	Corrected Eff	74.00	720.20	723.26	722.54	723.68	0.021589	5.17	14.31	7.70	0.59
Reach-1	11.286	PF 1	Pre-Proposed	50.00	720.20	723.15	722.11	723.36	0.011565	3.66	13.64	7.36	0.43
Reach-1	11.286	PF 1	Post Project	50.00	720.20	723.15	722.11	723.36	0.011564	3.66	13.64	7.36	0.43
Reach-1	11.146	PF 1	Corrected Eff	74.00	719.10	722.80	720.72	722.81	0.000292	0.92	138.48	85.56	0.09
Reach-1	11.146	PF 1	Pre-Proposed	50.00	719.10	723.03	720.50	723.03	0.000095	0.55	158.16	91.55	0.05

HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	11.146	PF 1	Post Project	50.00	719.10	723.03	720.50	723.03	0.000095	0.55	158.17	91.55	0.05
Reach-1	10.878	PF 1	Corrected Eff	74.00	716.80	722.13		722.15	0.000861	1.06	69.91	26.67	0.11
Reach-1	10.878	PF 1	Pre-Proposed	50.00	716.80	722.84		722.85	0.000187	0.56	89.90	29.83	0.06
Reach-1	10.878	PF 1	Post Project	50.00	716.80	722.84		722.85	0.000187	0.56	89.91	29.83	0.06
Reach-1	10.811	PF 1	Corrected Eff	74.00	716.50	722.07	717.28	722.07	0.000087	0.57	129.42	47.57	0.04
Reach-1	10.811	PF 1	Pre-Proposed	50.00	716.50	722.82	717.12	722.82	0.000026	0.34	147.29	51.39	0.02
Reach-1	10.811	PF 1	Post Project	50.00	716.50	722.82	717.12	722.82	0.000026	0.34	147.29	51.39	0.02
Reach-1	10.8055			Culvert									
Reach-1	10.8	PF 1	Corrected Eff	74.00	716.50	722.07	717.28	722.07	0.000087	0.57	129.36	47.56	0.04
Reach-1	10.8	PF 1	Pre-Proposed	50.00	716.50	722.82	717.12	722.82	0.000026	0.34	147.27	51.39	0.02
Reach-1	10.8	PF 1	Post Project	50.00	716.50	722.82	717.12	722.82	0.000026	0.34	147.27	51.39	0.02
Reach-1	10.754	PF 1	Corrected Eff	74.00	716.40	722.02	718.57	722.04	0.000248	0.95	78.22	24.56	0.09
Reach-1	10.754	PF 1	Pre-Proposed	50.00	716.40	722.81	718.26	722.81	0.000060	0.51	98.44	26.73	0.05
Reach-1	10.754	PF 1	Post Project	50.00	716.40	722.81	718.26	722.81	0.000060	0.51	98.44	26.73	0.05
Reach-1	10.64	PF 1	Corrected Eff	74.00	717.20	721.66	718.67	721.72	0.001449	1.94	38.08	8.90	0.17
Reach-1	10.64	PF 1	Pre-Proposed	50.00	717.20	722.72	718.37	722.74	0.000371	1.05	47.49	8.90	0.08
Reach-1	10.64	PF 1	Post Project	50.00	717.20	722.72	718.37	722.74	0.000371	1.05	47.49	8.90	0.08
Reach-1	10.638			Bridge									
Reach-1	10.636	PF 1	Corrected Eff	74.00	717.20	721.64	718.67	721.70	0.001465	1.95	37.92	8.90	0.17
Reach-1	10.636	PF 1	Pre-Proposed	50.00	717.20	722.71	718.37	722.73	0.000372	1.05	47.42	8.90	0.08
Reach-1	10.636	PF 1	Post Project	50.00	717.20	722.71	718.37	722.73	0.000372	1.05	47.42	8.90	0.08
Reach-1	10.441	PF 1	Corrected Eff	74.00	716.20	720.84		720.87	0.000497	1.61	51.85	17.71	0.14
Reach-1	10.441	PF 1	Pre-Proposed	50.00	716.20	722.60		722.61	0.000054	0.68	86.75	21.90	0.05
Reach-1	10.441	PF 1	Post Project	50.00	716.20	722.60		722.61	0.000054	0.68	86.76	21.90	0.05
Reach-1	10.315	PF 1	Corrected Eff	74.00	715.60	720.75		720.76	0.000076	0.72	111.22	29.40	0.06
Reach-1	10.315	PF 1	Pre-Proposed	50.00	715.60	722.59		722.59	0.000010	0.33	169.56	34.12	0.02
Reach-1	10.315	PF 1	Post Project	50.00	715.60	722.59		722.59	0.000010	0.33	169.56	34.12	0.02
Reach-1	10.221	PF 1	Corrected Eff	74.00	714.75	720.48	717.22	720.61	0.004220	2.87	25.79	5.01	0.22
Reach-1	10.221	PF 1	Pre-Proposed	50.00	714.75	722.55	716.77	722.57	0.000667	1.21	67.19	234.39	0.08
Reach-1	10.221	PF 1	Post Project	50.00	714.75	722.55	716.77	722.57	0.000667	1.21	67.20	234.40	0.08
Reach-1	10.218			Bridge									
Reach-1	10.215	PF 1	Corrected Eff	74.00	714.75	720.06	717.22	720.22	0.005177	3.12	23.71	5.01	0.25
Reach-1	10.215	PF 1	Pre-Proposed	50.00	714.75	722.35	716.75	722.38	0.000936	1.42	36.19	52.10	0.09
Reach-1	10.215	PF 1	Post Project	50.00	714.75	722.35	716.75	722.38	0.000936	1.42	36.20	52.23	0.09
Reach-1	10.09	PF 1	Corrected Eff	74.00	714.70	719.61	716.76	719.63	0.000309	1.28	99.83	147.90	0.11
Reach-1	10.09	PF 1	Pre-Proposed	50.00	714.70	722.37	716.47	722.37	0.000001	0.09	1438.95	1035.30	0.01
Reach-1	10.09	PF 1	Post Project	50.00	714.70	722.37	716.47	722.37	0.000001	0.09	1439.07	1035.32	0.01
Reach-1	9.775	PF 1	Corrected Eff	83.00	713.70	719.07		719.10	0.000329	1.40	73.09	25.88	0.12
Reach-1	9.775	PF 1	Pre-Proposed	50.00	713.70	722.36		722.36	0.000010	0.35	344.21	336.22	0.02
Reach-1	9.775	PF 1	Post Project	50.00	713.70	722.36		722.36	0.000010	0.35	344.25	336.23	0.02
Reach-1	9.572	PF 1	Corrected Eff	83.00	713.06	718.14	715.46	718.26	0.003232	2.79	29.75	7.01	0.24
Reach-1	9.572	PF 1	Pre-Proposed	50.00	713.06	722.34	714.93	722.34	0.000044	0.42	337.61	216.57	0.03
Reach-1	9.572	PF 1	Post Project	50.00	713.06	722.34	714.93	722.34	0.000044	0.42	337.63	216.57	0.03
Reach-1	9.568501			Bridge									
Reach-1	9.565	PF 1	Corrected Eff	83.00	713.06	718.01	715.47	718.14	0.003507	2.88	28.85	7.01	0.25
Reach-1	9.565	PF 1	Pre-Proposed	50.00	713.06	722.34	714.94	722.34	0.000011	0.21	337.55	216.56	0.01
Reach-1	9.565	PF 1	Post Project	50.00	713.06	722.34	714.94	722.34	0.000011	0.21	337.58	216.56	0.01
Reach-1	9.474	PF 1	Corrected Eff	83.00	713.30	717.69		717.71	0.000333	1.29	78.77	34.27	0.12
Reach-1	9.474	PF 1	Pre-Proposed	50.00	713.30	722.34		722.34	0.000001	0.11	804.44	297.06	0.01
Reach-1	9.474	PF 1	Post Project	50.00	713.30	722.34		722.34	0.000001	0.11	804.48	297.07	0.01
Reach-1	9.319	PF 1	Corrected Eff	83.00	713.60	717.32	714.96	717.35	0.000601	1.24	67.14	29.19	0.14
Reach-1	9.319	PF 1	Pre-Proposed	50.00	713.60	722.34	714.63	722.34	0.000000	0.07	1046.97	353.63	0.00
Reach-1	9.319	PF 1	Post Project	50.00	713.60	722.34	714.63	722.34	0.000000	0.07	1047.01	353.63	0.00
Reach-1	9.241	PF 1	Corrected Eff	83.00	713.80	717.01	714.91	717.05	0.000854	1.64	50.53	29.01	0.17
Reach-1	9.241	PF 1	Pre-Proposed	772.00	713.80	722.27	718.03	722.31	0.000465	2.38	1040.84	422.05	0.15
Reach-1	9.241	PF 1	Post Project	772.00	713.80	722.27	718.03	722.31	0.000465	2.38	1040.89	422.06	0.15
Reach-1	9.238			Bridge									
Reach-1	9.235	PF 1	Corrected Eff	83.00	713.80	716.96	714.91	717.01	0.000898	1.67	49.77	28.77	0.17
Reach-1	9.235	PF 1	Pre-Proposed	772.00	713.80	721.41	718.04	721.52	0.001141	3.46	711.14	341.36	0.22
Reach-1	9.235	PF 1	Post Project	772.00	713.80	721.41	718.04	721.52	0.001141	3.46	711.16	341.37	0.22
Reach-1	9.189	PF 1	Corrected Eff	83.00	712.00	716.56	714.85	716.65	0.002614	2.40	34.54	17.97	0.31
Reach-1	9.189	PF 1	Pre-Proposed	772.00	712.00	720.51	718.56	720.96	0.003877	5.52	166.77	84.97	0.44

HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	9.189	PF 1	Post Project	772.00	712.00	720.51	718.57	720.96	0.003877	5.52	166.78	84.98	0.44
Reach-1	9.06	PF 1	Corrected Eff	83.00	711.70	715.99	714.04	716.01	0.000459	1.08	77.12	39.91	0.14
Reach-1	9.06	PF 1	Pre-Proposed	772.00	711.70	720.04	716.43	720.09	0.000527	2.17	505.85	224.78	0.17
Reach-1	9.06	PF 1	Post Project	772.00	711.70	720.04	716.43	720.09	0.000527	2.17	505.89	224.79	0.17
Reach-1	8.536	PF 1	Corrected Eff	83.00	710.60	715.19	712.29	715.21	0.000198	0.81	102.58	43.46	0.09
Reach-1	8.536	PF 1	Pre-Proposed	772.00	710.60	719.22	714.94	719.24	0.000163	1.37	919.71	381.61	0.10
Reach-1	8.536	PF 1	Post Project	772.00	710.60	719.22	714.94	719.24	0.000163	1.37	919.97	381.65	0.10
Reach-1	8.45	PF 1	Pre-Proposed	772.00	710.55	719.23	714.93	719.23	0.000004	0.21	6058.93	2127.23	0.01
Reach-1	8.45	PF 1	Post Project	772.00	710.55	719.23	714.93	719.23	0.000004	0.21	6074.66	2139.47	0.01
Reach-1	8.40	PF 1	Pre-Proposed	772.00	710.51	719.23	714.74	719.23	0.000006	0.28	5143.35	2191.48	0.02
Reach-1	8.40	PF 1	Post Project	772.00	710.51	719.23	714.74	719.23	0.000006	0.27	5127.67	2112.51	0.02
Reach-1	8.35	PF 1	Pre-Proposed	772.00	710.38	719.23	715.00	719.23	0.000012	0.37	3288.35	1196.88	0.03
Reach-1	8.35	PF 1	Post Project	772.00	710.38	719.23	715.00	719.23	0.000012	0.37	3289.08	1197.05	0.03
Reach-1	8.30	PF 1	Pre-Proposed	772.00	710.32	719.22	715.47	719.22	0.000047	0.76	1918.02	850.21	0.05
Reach-1	8.30	PF 1	Post Project	772.00	710.32	719.22	715.47	719.22	0.000049	0.78	1806.19	688.03	0.05
Reach-1	8.25	PF 1	Pre-Proposed	772.00	710.04	719.21	714.96	719.21	0.000032	0.67	2162.77	847.04	0.04
Reach-1	8.25	PF 1	Post Project	772.00	710.04	719.21	714.96	719.21	0.000032	0.67	2161.84	841.87	0.04
Reach-1	8.158	PF 1	Corrected Eff	83.00	709.90	714.41	712.39	714.45	0.000994	1.55	53.54	27.87	0.20
Reach-1	8.158	PF 1	Pre-Proposed	772.00	709.90	719.17	715.63	719.18	0.000073	0.89	2011.78	905.03	0.06
Reach-1	8.158	PF 1	Post Project	772.00	709.90	719.17	715.63	719.18	0.000073	0.89	2012.00	905.12	0.06
Reach-1	8.07	PF 1	Pre-Proposed	772.00	709.87	719.17	713.33	719.17	0.000016	0.54	3755.27	1448.10	0.03
Reach-1	8.07	PF 1	Post Project	772.00	709.87	719.17	713.33	719.17	0.000016	0.54	3755.62	1448.17	0.03
Reach-1	8.06	PF 1	Pre-Proposed	772.00	709.85	719.17	713.26	719.17	0.000009	0.39	4734.52	1478.44	0.02
Reach-1	8.06	PF 1	Post Project	772.00	709.85	719.17	713.26	719.17	0.000011	0.43	4262.55	1321.91	0.03
Reach-1	8.05	PF 1	Pre-Proposed	772.00	709.83	719.16	713.17	719.17	0.000010	0.40	4455.55	1377.09	0.02
Reach-1	8.05	PF 1	Post Project	772.00	709.83	719.16	713.17	719.17	0.000010	0.40	4455.55	1377.09	0.02
Reach-1	8.017	PF 1	Corrected Eff	83.00	709.80	713.99	711.41	714.02	0.000366	1.33	62.33	49.96	0.13
Reach-1	8.017	PF 1	Pre-Proposed	772.00	709.80	719.03	714.41	719.13	0.000618	3.19	2463.48	700.00	0.19
Reach-1	8.017	PF 1	Post Project	772.00	709.80	719.03	714.41	719.13	0.000618	3.19	2463.48	700.00	0.19
Reach-1	8.013			Culvert									
Reach-1	8.009	PF 1	Corrected Eff	83.00	709.80	713.98	711.41	714.01	0.000370	1.34	62.11	49.89	0.13
Reach-1	8.009	PF 1	Pre-Proposed	772.00	709.80	718.61	714.41	718.74	0.000801	3.51	2171.63	700.00	0.22
Reach-1	8.009	PF 1	Post Project	772.00	709.80	718.61	714.41	718.74	0.000801	3.51	2171.63	700.00	0.22
Reach-1	7.938	PF 1	Corrected Eff	85.00	709.50	713.80		713.83	0.000617	1.50	65.16	33.64	0.16
Reach-1	7.938	PF 1	Pre-Proposed	772.00	709.50	718.42		718.48	0.000474	2.60	694.65	365.59	0.17
Reach-1	7.938	PF 1	Post Project	772.00	709.50	718.42		718.48	0.000474	2.60	694.65	365.59	0.17
Reach-1	7.791	PF 1	Corrected Eff	85.00	709.00	712.95	711.40	713.03	0.002069	2.19	38.82	20.56	0.28
Reach-1	7.791	PF 1	Pre-Proposed	772.00	709.00	717.76	714.69	717.90	0.001339	3.20	285.42	89.96	0.26
Reach-1	7.791	PF 1	Post Project	772.00	709.00	717.76	714.69	717.90	0.001339	3.20	285.42	89.96	0.26
Reach-1	7.615	PF 1	Corrected Eff	85.00	708.40	711.91	709.94	711.94	0.000738	1.48	57.47	25.89	0.18
Reach-1	7.615	PF 1	Pre-Proposed	772.00	708.40	716.38	712.78	716.59	0.001433	3.69	214.43	43.81	0.28
Reach-1	7.615	PF 1	Post Project	772.00	708.40	716.38	712.78	716.59	0.001433	3.69	214.43	43.81	0.28
Reach-1	7.491	PF 1	Corrected Eff	85.00	707.90	711.43		711.47	0.000707	1.61	57.66	30.39	0.18
Reach-1	7.491	PF 1	Pre-Proposed	772.00	707.90	715.39		715.62	0.001516	4.40	240.10	63.86	0.30
Reach-1	7.491	PF 1	Post Project	772.00	707.90	715.39		715.62	0.001516	4.40	240.10	63.86	0.30
Reach-1	7.411	PF 1	Corrected Eff	88.00	707.60	711.02		711.06	0.001336	1.66	55.79	39.67	0.23
Reach-1	7.411	PF 1	Pre-Proposed	772.00	707.60	714.86		715.02	0.001256	3.59	302.81	120.27	0.27
Reach-1	7.411	PF 1	Post Project	772.00	707.60	714.86		715.02	0.001256	3.59	302.81	120.27	0.27
Reach-1	7.213	PF 1	Corrected Eff	88.00	706.90	710.26		710.29	0.000471	1.20	78.94	42.65	0.14
Reach-1	7.213	PF 1	Pre-Proposed	772.00	706.90	713.96		714.04	0.000708	2.84	476.97	255.72	0.21
Reach-1	7.213	PF 1	Post Project	772.00	706.90	713.96		714.04	0.000708	2.84	476.97	255.72	0.21
Reach-1	6.966	PF 1	Corrected Eff	88.00	706.00	709.36		709.39	0.001088	1.53	57.38	33.58	0.21
Reach-1	6.966	PF 1	Pre-Proposed	772.00	706.00	712.43		712.63	0.001838	3.78	306.60	299.51	0.32
Reach-1	6.966	PF 1	Post Project	772.00	706.00	712.43		712.63	0.001838	3.78	306.60	299.51	0.32
Reach-1	6.813	PF 1	Corrected Eff	88.00	705.40	708.25	706.86	708.31	0.001716	1.92	45.99	28.10	0.26
Reach-1	6.813	PF 1	Pre-Proposed	772.00	705.40	711.26	709.59	711.35	0.001340	2.94	491.05	376.77	0.26
Reach-1	6.813	PF 1	Post Project	772.00	705.40	711.26	709.59	711.35	0.001340	2.94	491.05	376.77	0.26
Reach-1	6.64	PF 1	Corrected Eff	88.00	703.60	706.78		706.83	0.001518	1.77	49.85	30.22	0.24
Reach-1	6.64	PF 1	Pre-Proposed	772.00	703.60	708.83	707.89	709.19	0.005619	5.21	240.42	317.24	0.52
Reach-1	6.64	PF 1	Post Project	772.00	703.60	708.83	707.89	709.19	0.005619	5.21	240.42	317.24	0.52
Reach-1	6.353	PF 1	Corrected Eff	88.00	701.70	704.80		704.83	0.001151	1.49	59.08	37.97	0.21
Reach-1	6.353	PF 1	Pre-Proposed	772.00	701.70	708.32		708.33	0.000169	1.17	1307.90	860.90	0.10



HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	6.353	PF 1	Post Project	772.00	701.70	708.32		708.33	0.000169	1.17	1307.90	860.90	0.10
Reach-1	6.196	PF 1	Corrected Eff	88.00	700.90	704.00		704.03	0.000826	1.32	66.72	40.03	0.18
Reach-1	6.196	PF 1	Pre-Proposed	772.00	700.90	708.16		708.18	0.000241	1.47	1048.99	712.72	0.12
Reach-1	6.196	PF 1	Post Project	772.00	700.90	708.16		708.18	0.000241	1.47	1048.99	712.72	0.12
Reach-1	6.044	PF 1	Corrected Eff	90.00	700.00	703.66		703.67	0.000282	0.93	96.90	43.72	0.11
Reach-1	6.044	PF 1	Pre-Proposed	772.00	700.00	707.88		707.93	0.000385	1.99	534.34	276.12	0.15
Reach-1	6.044	PF 1	Post Project	772.00	700.00	707.88		707.93	0.000385	1.99	534.34	276.12	0.15
Reach-1	5.86	PF 1	Corrected Eff	90.00	699.00	703.16		703.20	0.001012	1.56	57.52	30.22	0.20
Reach-1	5.86	PF 1	Pre-Proposed	772.00	699.00	707.46		707.51	0.000509	2.24	700.35	399.27	0.17
Reach-1	5.86	PF 1	Post Project	772.00	699.00	707.46		707.51	0.000509	2.24	700.35	399.27	0.17
Reach-1	5.531	PF 1	Corrected Eff	90.00	698.90	701.87		701.90	0.000574	1.31	77.29	44.04	0.16
Reach-1	5.531	PF 1	Pre-Proposed	772.00	698.90	707.02		707.04	0.000165	1.59	996.97	315.92	0.10
Reach-1	5.531	PF 1	Post Project	772.00	698.90	707.02		707.04	0.000165	1.59	996.97	315.92	0.10
Reach-1	5.467	PF 1	Corrected Eff	90.00	698.90	701.73	699.89	701.75	0.000338	0.96	94.23	65.95	0.11
Reach-1	5.467	PF 1	Pre-Proposed	1370.00	698.90	706.37	702.70	706.75	0.002078	4.89	279.90	241.15	0.33
Reach-1	5.467	PF 1	Post Project	1370.00	698.90	706.37	702.70	706.75	0.002078	4.89	279.90	241.15	0.33
Reach-1	5.4645			Bridge									
Reach-1	5.462	PF 1	Corrected Eff	90.00	698.90	701.72	699.89	701.73	0.000344	0.96	93.74	65.77	0.11
Reach-1	5.462	PF 1	Pre-Proposed	1370.00	698.90	706.03	702.70	706.45	0.002452	5.14	266.34	226.50	0.35
Reach-1	5.462	PF 1	Post Project	1370.00	698.90	706.03	702.70	706.45	0.002452	5.14	266.34	226.50	0.35
Reach-1	5.396	PF 1	Corrected Eff	90.00	698.50	701.55	699.48	701.57	0.000676	1.06	91.46	42.30	0.12
Reach-1	5.396	PF 1	Pre-Proposed	1370.00	698.50	705.21	702.85	705.37	0.003103	4.13	538.22	229.17	0.30
Reach-1	5.396	PF 1	Post Project	1370.00	698.50	705.21	702.85	705.37	0.003103	4.13	538.22	229.17	0.30
Reach-1	5.224	PF 1	Corrected Eff	90.00	697.50	699.77		699.91	0.013894	2.91	30.95	27.18	0.48
Reach-1	5.224	PF 1	Pre-Proposed	1370.00	697.50	704.11		704.14	0.000750	1.90	1086.39	364.31	0.14
Reach-1	5.224	PF 1	Post Project	1370.00	697.50	704.11		704.14	0.000750	1.90	1086.39	364.31	0.14
Reach-1	4.972	PF 1	Corrected Eff	90.00	696.00	699.64	697.39	699.64	0.000048	0.27	608.51	685.19	0.03
Reach-1	4.972	PF 1	Pre-Proposed	1370.00	696.00	704.01	698.99	704.01	0.000034	0.46	4697.89	1060.29	0.03
Reach-1	4.972	PF 1	Post Project	1370.00	696.00	704.01	698.99	704.01	0.000034	0.46	4697.89	1060.29	0.03
Reach-1	4.926	PF 1	Corrected Eff	90.00	695.70	699.61	696.69	699.62	0.000216	0.84	107.24	83.86	0.08
Reach-1	4.926	PF 1	Pre-Proposed	1370.00	695.70	703.96	700.05	703.98	0.000367	1.86	2361.70	638.75	0.12
Reach-1	4.926	PF 1	Post Project	1370.00	695.70	703.96	700.05	703.98	0.000367	1.86	2361.70	638.75	0.12
Reach-1	4.923			Bridge									
Reach-1	4.92	PF 1	Corrected Eff	90.00	695.70	699.60	696.69	699.61	0.000218	0.84	107.00	83.73	0.08
Reach-1	4.92	PF 1	Pre-Proposed	1370.00	695.70	703.60	700.05	703.62	0.000484	2.07	2130.97	625.98	0.13
Reach-1	4.92	PF 1	Post Project	1370.00	695.70	703.60	700.05	703.62	0.000484	2.07	2130.97	625.98	0.13
Reach-1	4.859	PF 1	Corrected Eff	94.00	695.60	699.55	698.00	699.55	0.000150	0.59	287.32	303.00	0.07
Reach-1	4.859	PF 1	Pre-Proposed	1370.00	695.60	703.54	699.70	703.55	0.000124	1.09	2315.30	652.38	0.08
Reach-1	4.859	PF 1	Post Project	1370.00	695.60	703.54	699.70	703.55	0.000124	1.09	2315.30	652.38	0.08
Reach-1	4.585	PF 1	Corrected Eff	94.00	695.40	699.27		699.28	0.000247	0.88	164.88	147.68	0.10
Reach-1	4.585	PF 1	Pre-Proposed	1370.00	695.40	703.24		703.27	0.000359	1.97	1365.57	419.60	0.14
Reach-1	4.585	PF 1	Post Project	1370.00	695.40	703.24		703.27	0.000359	1.97	1365.57	419.60	0.14
Reach-1	4.316	PF 1	Corrected Eff	94.00	695.00	698.86		698.87	0.000343	0.90	103.87	48.55	0.11
Reach-1	4.316	PF 1	Pre-Proposed	1370.00	695.00	702.71		702.74	0.000415	1.86	1351.79	524.98	0.14
Reach-1	4.316	PF 1	Post Project	1370.00	695.00	702.71		702.74	0.000415	1.86	1351.79	524.98	0.14
Reach-1	4.084	PF 1	Corrected Eff	94.00	694.80	697.85		697.91	0.003186	1.96	48.05	37.58	0.30
Reach-1	4.084	PF 1	Pre-Proposed	1370.00	694.80	701.88		701.96	0.001183	3.05	848.07	388.35	0.24
Reach-1	4.084	PF 1	Post Project	1370.00	694.80	701.88		701.96	0.001183	3.05	848.07	388.35	0.24
Reach-1	3.91	PF 1	Corrected Eff	94.00	693.70	696.43	694.76	696.46	0.000939	1.41	81.72	72.63	0.18
Reach-1	3.91	PF 1	Pre-Proposed	1370.00	693.70	701.24	697.89	701.28	0.000546	2.45	943.72	256.18	0.17
Reach-1	3.91	PF 1	Post Project	1370.00	693.70	701.24	697.89	701.28	0.000546	2.45	943.72	256.18	0.17
Reach-1	3.832	PF 1	Corrected Eff	112.00	693.10	695.90		695.96	0.001551	2.06	67.13	47.97	0.24
Reach-1	3.832	PF 1	Pre-Proposed	1370.00	693.10	701.06		701.09	0.000412	2.30	1136.36	313.79	0.15
Reach-1	3.832	PF 1	Post Project	1370.00	693.10	701.06		701.09	0.000412	2.30	1136.36	313.79	0.15
Reach-1	3.737	PF 1	Corrected Eff	112.00	692.40	695.35		695.38	0.000912	1.63	92.26	60.44	0.18
Reach-1	3.737	PF 1	Pre-Proposed	1370.00	692.40	700.78		700.86	0.000669	3.02	754.42	171.75	0.19
Reach-1	3.737	PF 1	Post Project	1370.00	692.40	700.78		700.86	0.000669	3.02	754.42	171.75	0.19
Reach-1	3.545	PF 1	Corrected Eff	112.00	690.90	694.46		694.50	0.000859	1.69	91.50	75.44	0.18
Reach-1	3.545	PF 1	Pre-Proposed	1370.00	690.90	700.48		700.50	0.000211	1.81	1415.99	356.26	0.11
Reach-1	3.545	PF 1	Post Project	1370.00	690.90	700.48		700.50	0.000211	1.81	1415.99	356.26	0.11
Reach-1	3.479	PF 1	Corrected Eff	112.00	690.30	694.22	691.41	694.24	0.000593	1.06	105.94	70.22	0.10
Reach-1	3.479	PF 1	Pre-Proposed	1370.00	690.30	699.80	694.70	700.20	0.003876	5.06	270.98	413.74	0.29
Reach-1	3.479	PF 1	Post Project	1370.00	690.30	699.80	694.70	700.20	0.003876	5.06	270.98	413.74	0.29

HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1 (Continued)

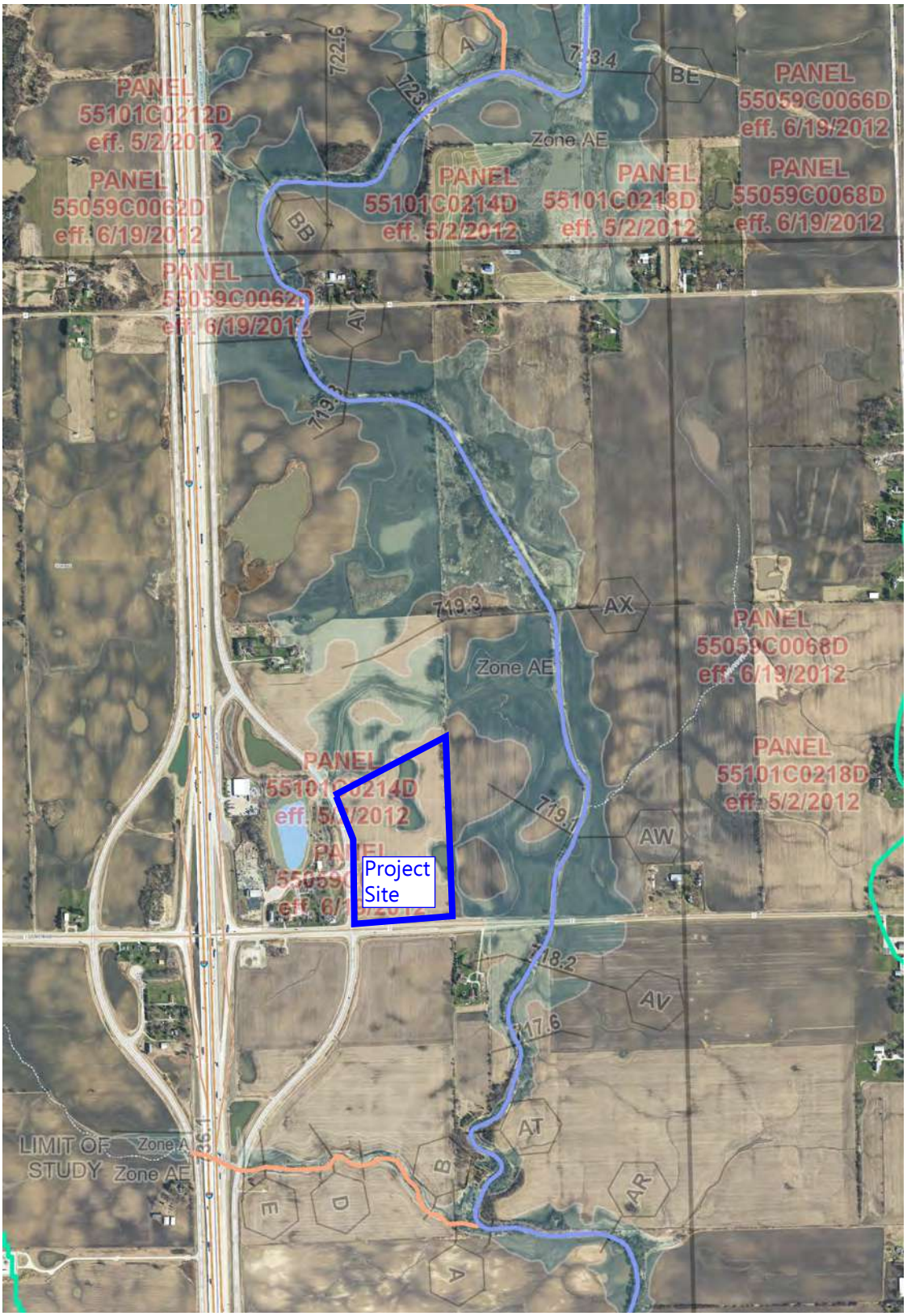
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	3.469			Bridge									
Reach-1	3.459	PF 1	Corrected Eff	112.00	690.30	694.13	691.41	694.15	0.000649	1.09	103.10	60.54	0.10
Reach-1	3.459	PF 1	Pre-Proposed	1370.00	690.30	699.13	694.70	699.59	0.004993	5.45	251.16	346.10	0.33
Reach-1	3.459	PF 1	Post Project	1370.00	690.30	699.13	694.70	699.59	0.004993	5.45	251.16	346.10	0.33
Reach-1	3.381	PF 1	Corrected Eff	112.00	689.70	693.68	691.79	693.71	0.001972	1.68	84.20	41.07	0.17
Reach-1	3.381	PF 1	Pre-Proposed	1370.00	689.70	698.24	695.55	698.30	0.001769	2.95	775.60	180.24	0.19
Reach-1	3.381	PF 1	Post Project	1370.00	689.70	698.24	695.55	698.30	0.001769	2.95	775.60	180.24	0.19
Reach-1	3.28	PF 1	Corrected Eff	112.00	688.80	692.55	690.73	692.58	0.002306	1.36	95.13	78.28	0.17
Reach-1	3.28	PF 1	Pre-Proposed	1370.00	688.80	697.06	693.66	697.17	0.002533	3.19	599.22	172.92	0.22
Reach-1	3.28	PF 1	Post Project	1370.00	688.80	697.06	693.66	697.17	0.002533	3.19	599.22	172.92	0.22
Reach-1	3.186	PF 1	Corrected Eff	112.00	688.20	691.93	689.50	691.94	0.000797	1.07	104.71	71.55	0.11
Reach-1	3.186	PF 1	Pre-Proposed	1370.00	688.20	696.64	692.57	696.66	0.000499	1.60	1648.16	524.58	0.10
Reach-1	3.186	PF 1	Post Project	1370.00	688.20	696.64	692.57	696.66	0.000499	1.60	1648.16	524.58	0.10
Reach-1	3.185			Bridge									
Reach-1	3.184	PF 1	Corrected Eff	112.00	688.20	691.92	689.50	691.93	0.000807	1.07	104.32	71.32	0.11
Reach-1	3.184	PF 1	Pre-Proposed	1370.00	688.20	696.61	692.57	696.63	0.000511	1.62	1634.82	523.70	0.10
Reach-1	3.184	PF 1	Post Project	1370.00	688.20	696.61	692.57	696.63	0.000511	1.62	1634.82	523.70	0.10
Reach-1	3.097	PF 1	Corrected Eff	112.00	687.60	691.50		691.52	0.001046	1.24	129.49	85.37	0.13
Reach-1	3.097	PF 1	Pre-Proposed	1370.00	687.60	696.42		696.44	0.000408	1.47	1731.55	466.34	0.09
Reach-1	3.097	PF 1	Post Project	1370.00	687.60	696.42		696.44	0.000408	1.47	1731.55	466.34	0.09
Reach-1	2.852	PF 1	Corrected Eff	112.00	686.40	689.38	688.16	689.48	0.002737	2.54	50.53	37.59	0.31
Reach-1	2.852	PF 1	Pre-Proposed	1370.00	686.40	695.73	692.00	695.80	0.000688	3.19	1114.88	300.50	0.19
Reach-1	2.852	PF 1	Post Project	1370.00	686.40	695.73	692.00	695.80	0.000688	3.19	1114.88	300.50	0.19
Reach-1	2.809	PF 1	Corrected Eff	112.00	686.10	689.25	687.01	689.27	0.000328	1.24	90.00	48.71	0.13
Reach-1	2.809	PF 1	Pre-Proposed	1370.00	686.10	695.08	690.28	695.49	0.001347	5.17	264.75	238.87	0.31
Reach-1	2.809	PF 1	Post Project	1370.00	686.10	695.08	690.28	695.49	0.001347	5.17	264.75	238.87	0.31
Reach-1	2.806			Bridge									
Reach-1	2.803	PF 1	Corrected Eff	112.00	686.10	689.24	687.01	689.26	0.000333	1.25	89.63	48.63	0.13
Reach-1	2.803	PF 1	Pre-Proposed	1370.00	686.10	694.29	690.26	694.79	0.001837	5.68	241.20	215.96	0.35
Reach-1	2.803	PF 1	Post Project	1370.00	686.10	694.29	690.26	694.79	0.001837	5.68	241.20	215.96	0.35
Reach-1	2.801	PF 1	Corrected Eff	169.00	686.10	689.21	687.22	689.25	0.001076	1.66	101.95	35.50	0.17
Reach-1	2.801	PF 1	Pre-Proposed	1370.00	686.10	694.34	689.93	694.70	0.003153	4.82	284.02	35.50	0.30
Reach-1	2.801	PF 1	Post Project	1370.00	686.10	694.34	689.93	694.70	0.003153	4.82	284.02	35.50	0.30
Reach-1	2.706	PF 1	Corrected Eff	169.00	685.10	688.31	686.90	688.42	0.002884	2.80	75.18	38.82	0.30
Reach-1	2.706	PF 1	Pre-Proposed	1370.00	685.10	692.90	690.00	693.19	0.002974	5.51	524.94	170.80	0.36
Reach-1	2.706	PF 1	Post Project	1370.00	685.10	692.90	690.00	693.19	0.002974	5.51	524.94	170.80	0.36
Reach-1	2.457	PF 1	Corrected Eff	169.00	683.10	686.36		686.39	0.000964	1.59	161.28	96.33	0.17
Reach-1	2.457	PF 1	Pre-Proposed	1370.00	683.10	690.55		690.67	0.001383	3.59	707.03	174.78	0.24
Reach-1	2.457	PF 1	Post Project	1370.00	683.10	690.55		690.67	0.001383	3.59	707.03	174.78	0.24
Reach-1	2.276	PF 1	Corrected Eff	169.00	681.70	685.14		685.21	0.001750	2.12	83.80	39.12	0.23
Reach-1	2.276	PF 1	Pre-Proposed	1370.00	681.70	688.59		688.86	0.003193	5.02	611.83	333.90	0.36
Reach-1	2.276	PF 1	Post Project	1370.00	681.70	688.59		688.86	0.003193	5.02	611.83	333.90	0.36
Reach-1	2.186	PF 1	Corrected Eff	169.00	681.00	684.76		684.79	0.000507	1.37	165.17	109.03	0.13
Reach-1	2.186	PF 1	Pre-Proposed	1370.00	681.00	687.81		687.90	0.001225	3.27	1035.81	460.72	0.23
Reach-1	2.186	PF 1	Post Project	1370.00	681.00	687.81		687.90	0.001225	3.27	1035.81	460.72	0.23
Reach-1	2.118	PF 1	Corrected Eff	169.00	680.50	684.56		684.59	0.000658	1.45	205.20	179.10	0.15
Reach-1	2.118	PF 1	Pre-Proposed	1370.00	680.50	687.50		687.54	0.000853	2.59	1323.94	495.11	0.19
Reach-1	2.118	PF 1	Post Project	1370.00	680.50	687.50		687.54	0.000853	2.59	1323.94	495.11	0.19
Reach-1	1.787	PF 1	Corrected Eff	169.00	678.30	682.78		682.83	0.001863	1.88	112.28	113.84	0.23
Reach-1	1.787	PF 1	Pre-Proposed	1370.00	678.30	685.21		685.34	0.002765	3.82	622.57	266.28	0.32
Reach-1	1.787	PF 1	Post Project	1370.00	678.30	685.21		685.34	0.002765	3.82	622.57	266.28	0.32
Reach-1	1.59	PF 1	Corrected Eff	169.00	677.10	680.89		680.93	0.001778	1.77	95.72	48.85	0.22
Reach-1	1.59	PF 1	Pre-Proposed	1370.00	677.10	684.29		684.31	0.000492	1.71	1459.37	650.01	0.14
Reach-1	1.59	PF 1	Post Project	1370.00	677.10	684.29		684.31	0.000492	1.71	1459.37	650.01	0.14
Reach-1	1.389	PF 1	Corrected Eff	169.00	675.80	679.73	677.30	679.77	0.000771	1.80	119.35	46.94	0.16
Reach-1	1.389	PF 1	Pre-Proposed	1370.00	675.80	683.75	681.25	683.80	0.000620	2.62	1023.34	297.38	0.17
Reach-1	1.389	PF 1	Post Project	1370.00	675.80	683.75	681.25	683.80	0.000620	2.62	1023.34	297.38	0.17
Reach-1	1.341	PF 1	Corrected Eff	169.00	675.50	679.65	676.70	679.66	0.000206	0.92	183.79	55.60	0.08
Reach-1	1.341	PF 1	Pre-Proposed	1550.00	675.50	683.21	679.10	683.49	0.001798	4.27	362.84	538.00	0.28
Reach-1	1.341	PF 1	Post Project	1550.00	675.50	683.21	679.10	683.49	0.001798	4.27	362.84	538.00	0.28
Reach-1	1.328			Culvert									
Reach-1	1.315	PF 1	Corrected Eff	169.00	675.50	679.64	676.70	679.65	0.000208	0.92	183.29	55.59	0.09
Reach-1	1.315	PF 1	Pre-Proposed	1550.00	675.50	682.58	679.09	682.92	0.002438	4.68	331.14	538.00	0.32

HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	1.315	PF 1	Post Project	1550.00	675.50	682.58	679.09	682.92	0.002438	4.68	331.14	538.00	0.32
Reach-1	1.223	PF 1	Corrected Eff	193.00	675.10	679.48		679.50	0.000447	1.25	154.41	53.88	0.13
Reach-1	1.223	PF 1	Pre-Proposed	1550.00	675.10	681.83		681.95	0.001587	3.43	787.81	384.80	0.27
Reach-1	1.223	PF 1	Post Project	1550.00	675.10	681.83		681.95	0.001587	3.43	787.81	384.80	0.27
Reach-1	1.19	PF 1	Corrected Eff	193.00	675.00	679.39	676.56	679.42	0.000568	1.47	131.44	93.70	0.15
Reach-1	1.19	PF 1	Pre-Proposed	1550.00	675.00	681.71	679.79	681.76	0.000833	2.52	1223.72	542.84	0.19
Reach-1	1.19	PF 1	Post Project	1550.00	675.00	681.71	679.79	681.76	0.000833	2.52	1223.72	542.84	0.19
Reach-1	1.085	PF 1	Corrected Eff	193.00	674.70	679.00	676.37	679.05	0.000778	1.78	108.73	799.36	0.17
Reach-1	1.085	PF 1	Pre-Proposed	1550.00	674.70	681.61	679.31	681.62	0.000136	1.08	2803.19	907.10	0.08
Reach-1	1.085	PF 1	Post Project	1550.00	674.70	681.61	679.31	681.62	0.000136	1.08	2803.19	907.10	0.08
Reach-1	1.022	PF 1	Corrected Eff	193.00	674.40	678.66		678.69	0.001667	1.86	158.46	118.65	0.23
Reach-1	1.022	PF 1	Pre-Proposed	1550.00	674.40	681.47		681.50	0.000945	2.28	1284.88	591.47	0.20
Reach-1	1.022	PF 1	Post Project	1550.00	674.40	681.47		681.50	0.000945	2.28	1284.88	591.47	0.20
Reach-1	0.723	PF 1	Corrected Eff	191.00	672.70	677.19		677.22	0.000655	1.64	224.94	191.53	0.16
Reach-1	0.723	PF 1	Pre-Proposed	1670.00	672.70	679.21		679.33	0.002535	4.43	735.34	284.15	0.34
Reach-1	0.723	PF 1	Post Project	1670.00	672.70	679.21		679.33	0.002535	4.43	735.34	284.15	0.34
Reach-1	0.374	PF 1	Corrected Eff	191.00	671.50	675.49	674.04	675.54	0.001553	2.21	197.64	341.74	0.24
Reach-1	0.374	PF 1	Pre-Proposed	1670.00	671.50	677.44	676.23	677.45	0.000637	2.03	1945.71	1077.98	0.16
Reach-1	0.374	PF 1	Post Project	1670.00	671.50	677.44	676.23	677.45	0.000637	2.03	1945.71	1077.98	0.16
Reach-1	0.291	PF 1	Corrected Eff	191.00	671.20	675.20		675.21	0.000406	1.17	432.25	612.15	0.12
Reach-1	0.291	PF 1	Pre-Proposed	1670.00	671.20	677.24		677.25	0.000352	1.55	2521.81	1342.85	0.12
Reach-1	0.291	PF 1	Post Project	1670.00	671.20	677.24		677.25	0.000352	1.55	2521.81	1342.85	0.12
Reach-1	0.165	PF 1	Corrected Eff	191.00	670.80	674.80	673.12	674.85	0.001890	1.90	158.15	241.75	0.25
Reach-1	0.165	PF 1	Pre-Proposed	1670.00	670.80	677.02	675.64	677.05	0.001288	2.32	1332.80	835.98	0.23
Reach-1	0.165	PF 1	Post Project	1670.00	670.80	677.02	675.64	677.05	0.001288	2.32	1332.80	835.98	0.23
Reach-1	0.152	PF 1	Corrected Eff	191.00	670.80	674.62	673.12	674.69	0.003104	2.30	118.27	194.68	0.31
Reach-1	0.152	PF 1	Pre-Proposed	1670.00	670.80	676.92	675.64	676.97	0.001494	2.45	1257.07	809.39	0.24
Reach-1	0.152	PF 1	Post Project	1670.00	670.80	676.92	675.64	676.97	0.001494	2.45	1257.07	809.39	0.24
Reach-1	0.139	PF 1	Corrected Eff	191.00	670.70	674.52	672.21	674.56	0.000850	1.82	155.50	224.88	0.18
Reach-1	0.139	PF 1	Pre-Proposed	1670.00	670.70	676.85	675.53	676.88	0.000850	2.64	1538.02	821.18	0.20
Reach-1	0.139	PF 1	Post Project	1670.00	670.70	676.85	675.53	676.88	0.000850	2.64	1538.02	821.18	0.20

Appendix F: Supplementary Information

Surface Water Data Viewer Map



Legend

2D Water Surface Elevation Grid

- High : 937.629
- Low : 853.184

Dams

- Dam
- FERC and FERC Exempt Dam
- Cranberry Dam
- Removed Dam
- Structure not on Waterway
- <all other values>

Levees

Geomarks

Floodplain Analysis Lines

- Case by Case Analysis for Development in Floodplain
- Dam Failure Analysis
- Encroachment Analysis
- Flood Insurance Study
- Flood Storage Analysis
- Floodplain Study (Locally Funded)
- Hydrology/Hydraulics developed at a Dam
- <all other values>

Floodplain Analysis Catchments

Floodplain Analysis Points

- Case by Case Analysis for Development in Floodplain
- Dam Failure Analysis
- Encroachment Analysis
- Flood Insurance Study
- Flood Storage Analysis
- Floodplain Study (Locally Funded)
- Hydrology/Hydraulics developed at a Dam
- <all other values>

Record Flood Levels

FERC Project Area Boundaries

0.5 0 0.25 0.5 Miles

1: 15,840

NAD_1983_HARN_Wisconsin_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/legal/

Notes

Obtained from the Flood Insurance Study Volume 1 of 3 for Kenosha County, Wisconsin - Revised April 11, 2024; Flood Insurance Study Number 55059CV001C. Version Number 2.8.2.1

	Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
				10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
D	Kilbourn Road Ditch	At confluence with Des Plaines River	23.7	944	*	1,430	1,670	*
C	Kilbourn Road Ditch	At 75th Street / State Highway 50	22.3	883	*	1,340	1,550	*
B	Kilbourn Road Ditch	Downstream of County Highway S	17.1	656	*	1,110	1,370	*
A	Kilbourn Road Ditch	Upstream of County Highway A	9.0	406	*	634	772	*

Existing Model Flows (as provided)

	River	Reach	RS	PF 1
1	RIVER-1	Reach-1	12.641	69
2	RIVER-1	Reach-1	12.248	73
3	RIVER-1	Reach-1	11.55	74
4	RIVER-1	Reach-1	9.775	83
5	RIVER-1	Reach-1	7.938	85
6	RIVER-1	Reach-1	7.411	88
7	RIVER-1	Reach-1	6.044	90
8	RIVER-1	Reach-1	4.859	94
9	RIVER-1	Reach-1	3.832	112
10	RIVER-1	Reach-1	2.801	169
11	RIVER-1	Reach-1	1.223	193
12	RIVER-1	Reach-1	0.723	191

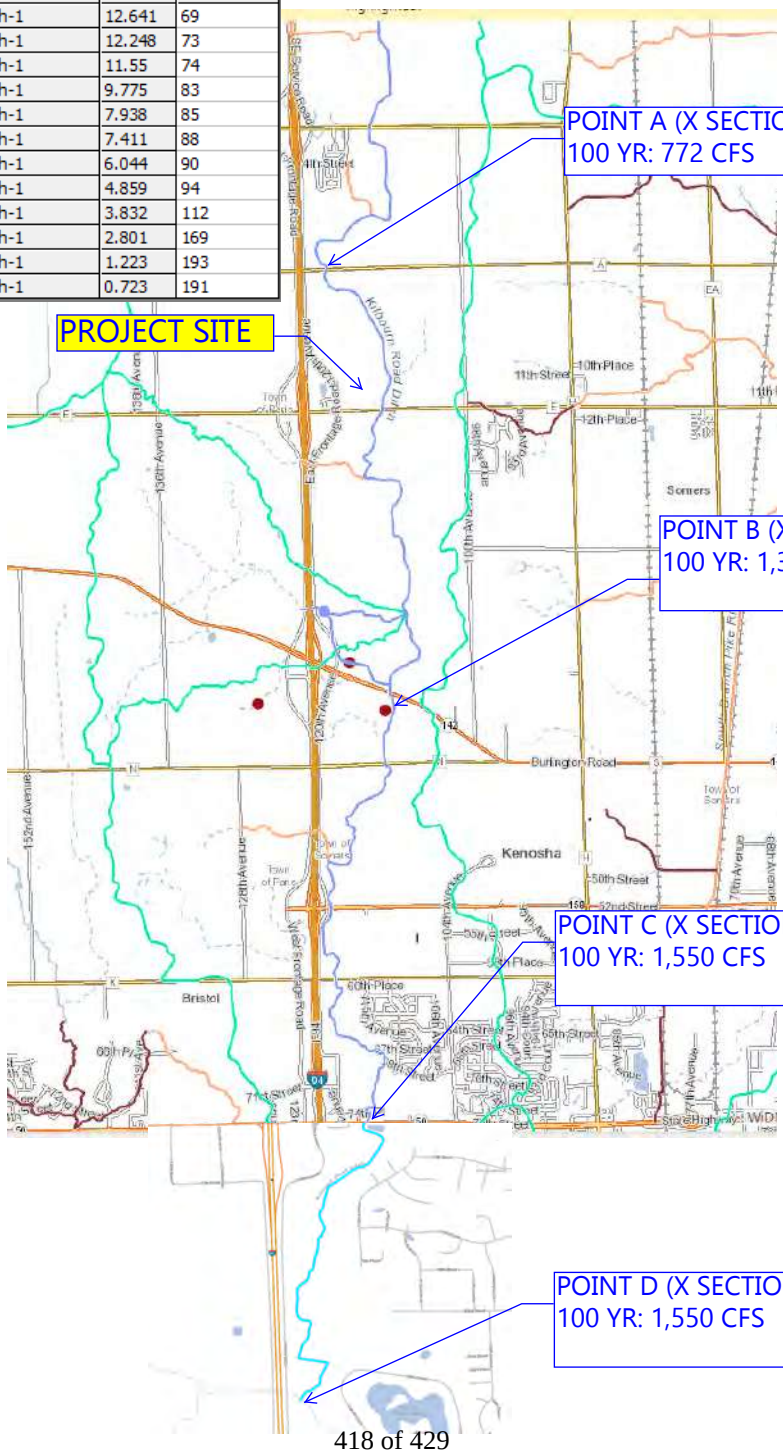


Photo from 120th Street (E Frontage Rd) looking North

Photo from 120th Street (E Frontage Rd) looking East

Photo from 120th Street (E Frontage Rd) looking South

Photo from Somers Rd (12th Street/CTH E) looking North

VILLAGE OF SOMERS
Department of Planning & Development

VILLAGE OF SOMERS CONDITIONAL USE PERMIT PROCEDURES

☐ 1. Contact the Kenosha County Department of Planning & Development and check with staff to determine if your proposed use is a permitted use, an accessory use or a conditional use. If it is a conditional use, then a conditional use permit must be applied for and received prior to occupying or using the site for that use.

☐ 2. Contact the Kenosha County Department of Planning & Development and schedule a pre-conference meeting, which is required for all conditional use permit requests.

Meeting Date: 7/13/23

☐ 3. Contact the Village of Somers to determine if your conditional use permit application requires requires concept review by the Village Plan Commission. If so, contact the Village of Somers clerk to schedule a concept meeting with the Village Plan Commission.

Meeting Date: _____

☐ 4. Complete and submit to the Kenosha County Department of Planning & Development the Village of Somers Conditional Use Permit Application by the filing deadline.

Filing Deadline: April 26, 2024

☐ 5. Upon submission your will be given two copies of the date-stamped application. Submit a copy of the date-stamped application to the Village of Somers clerk for placement on the agendas of the Village of Somers Plan Commission and the Village of Somers Board. Keep the other copy for your records.

☐ 6. Attend the Village Plan Commission and the Village Board meetings. **NOTE:** You must attend or the Village will not be able to act on your request. At these meeting you will be asked to brief the committee on your request and ultimately agree to a list of conditions of approval relating to your proposed use.

Village Plan Commission meeting date (tentative): 6/10/24

Village Board meeting date (tentative): 6/25/24

☐ 7. Village clerk will provide written notice of final action to property owner/applicant.

☐ 8. If approved, you may commence with applying for and obtaining any necessary zoning permit(s) for construction (i.e. new buildings, building additions, signage, fencing, etc...) with the Kenosha County Department of Planning and Development.

IMPORTANT TELEPHONE NUMBERS

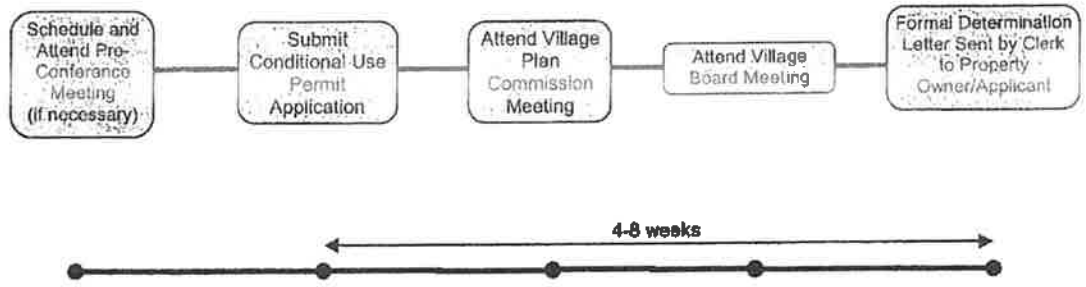
Kenosha County Center
Department of Public Works & Development Services
19600 - 75th Street, Suite 185-3
Bristol, Wisconsin 53104-9772

Division of Planning & Development (Including Sanitation & Land Conservation)	857-1895
Facsimile #	857-1920
Public Works Division of Highways	857-1870

Administration Building

Division of Land Information	653-2622
Village of Somers	859-2822
Wisconsin Department of Natural Resources - Sturtevant Office	884-2300
Wisconsin Department of Transportation - Waukesha Office	548-8722

Conditional Use Permit Timeline



For Reference Purposes

May 2015

VILLAGE OF SOMERS
Department of Planning & Development

CONDITIONAL USE PERMIT APPLICATION

(a) Property Owner's Name:
Somers Gateway Center LLC
Print Name: Paul Bhardwaj Signature:
Mailing Address: 1170 22nd Ave
City: Kenosha State: WI Zip: 53140
Phone Number: 262-425-1675 E-mail (optional): Paul@goldenoilcompany.com

Note: Unless the property owner's signature can be obtained in the above space, a letter of agent status signed by the legal property owner must be submitted if you are a tenant, leaseholder, or authorized agent representing the legal owner, allowing you to act on their behalf.

(b) Agent's Name (if applicable):
Print Name: Devin Winter Signature:
Business Name: Excel Engineering Inc
Mailing Address: 100 Camelot Dr
City: Fond du Lac State: WI Zip: 54935
Phone Number: 920-322-1777 E-mail (optional): devin.winter@excelengineer.com

(c) Architect's Name (if applicable):
Print Name: Rob Lindstrom, AIA Signature:
Business Name: Keller, Inc.
Mailing Address: P.O. Box 620
City: Kaukauna State: WI Zip: 54130
Phone Number: 920-427-4447 E-mail (optional): rlindstrom@kellerbuilds.com

(d) Engineer's Name (if applicable):
Print Name: Devin Winter, P.E. Signature:
Business Name: Excel Engineering, Inc
Mailing Address: 100 Camelot Drive
City: Fond du Lac State: WI Zip: 54935
Phone Number: 920-322-1777 E-mail (optional): devin.w@excelengineer.com

(e) Tax key number(s) of subject site:

82-4-222-073-0301

Address of the subject site:

NE Corner of 12th Street (Somers Rd) and 120th Ave

(f) Plan of Operation (or attach separate plan of operation)

Type of structure:

Commercial building

Proposed operation or use of the structure or site:

The proposed redevelopment will include an automobile fueling station, first floor convenience store with restrooms, multiple quick-serve restaurants with a small outdoor patio for dining and two (2) drive thrus. After the rezone to B-4 with PUD overlay is completed, CUP required is required for the fueling station and outdoor dining area.

Number of employees (by shift): Total # of employees = 24 (20 Full Time, 4 Part-Time)

Hours of Operation: 24 / 7

Any outdoor entertainment? If so, please explain: NO

Any outdoor storage? If so, please explain: Misc. retail items: propane, ice, firewood, washer fluid, etc.

Zoning district of the property: A-4 (Rezone to B3 with PUD proposed)

(g) Attach a plat of survey prepared by a professional land surveyor or site plan drawn to scale and approved by the Kenosha County Department of Planning & Development showing all of the information required under section 12.05-1(h)3 for a zoning permit. In addition, the plat of survey or site plan layout shall show the location, elevation and use of any abutting lands and the location and foundation elevations of structures within 50 feet of the subject site; soil mapping unit lines; ordinary high water mark, historic high water marks and floodlands on or within 50 feet of the subject premises, existing and proposed gravel, asphalt and concrete surfaces, existing and proposed signage, existing and proposed buildings, and existing and proposed landscaping.

For conditional use permit applications that are made within shoreland and floodland areas, such description shall also include information that is necessary for the Village Plan Commission to determine whether the proposed development will hamper flood flows, impair floodplain storage capacity, or cause danger to human, animal or aquatic life. This additional information may include plans, certified by a registered professional engineer or professional surveyor, showing existing and proposed elevations or contours of the ground; fill or storage elevation; basement and first floor elevations of structures; size, location, and spatial arrangement of all existing and proposed structures on the site; location and elevation of streets water supply and sanitary facilities; aerial photographs, and photographs showing existing surrounding land uses and vegetation upstream and downstream; soil types and any other pertinent information required by either the Village of Somers Planning & Development office, Village Plan Commission or Village Board:

(h) The Kenosha County Department of Planning & Development may ask for additional information.

(i) The fee specified in Section 12.05-8 of this ordinance.

Request for Conditional Use Permit (payable to "Kenosha County") $1,350.00

(For other fees see the Fee Schedule)

For conditional use permit applications that are made within shoreland and floodland areas, such description shall also include information that is necessary for the Village Plan Commission to determine whether the proposed development will hamper flood flows, impair floodplain storage capacity, or cause danger to human, animal or aquatic life. This additional information may include plans, certified by a registered professional engineer or professional surveyor, showing existing and proposed elevations or contours of the ground; fill or storage elevation; basement and first floor elevations of structures; size, location, and spatial arrangement of all existing and proposed structures on the site; location and elevation of streets water supply and sanitary facilities; aerial photographs, and photographs showing existing surrounding land uses and vegetation upstream and downstream; soil types and any other pertinent information required by either the Village of Somers Planning & Development office, Village Plan Commission or Village Board:

(h) The Kenosha County Department of Planning & Development may ask for additional information.

(i) The fee specified in Section 12.05-8 of this ordinance.

Request for Conditional Use Permit (payable to "Kenosha County") $1,350.00

(For other fees see the Fee Schedule)

April 26, 2024

CUP Application - Project Narrative/Business Summary/Plan of Operation

Project: Golden Oil Marketplace
1170 22nd Ave
Kenosha, WI 53140

Somers Gateway Center, LLC is requesting conditional use permit approval for the development of the property located at the northeast corner of 120th Ave (E. Frontage Rd) and Somers Rd (CTH E) in the Village of Somers. The existing land is currently agricultural and utilized as farmland. The proposed redevelopment will include an automobile fueling station, first floor convenience store with restrooms, multiple quick-serve restaurants with a small outdoor patio for dining and two (2) drive throughs. The property zoning is currently zoned A-4 (Agricultural Land Holding District) and is proposed to be rezoned to B-3 (Highway Business) with PUD and split into four (4) parcels via certified survey map (CSM). Based on the zoning ordinance, a conditional use permit is required for the fueling station and outdoor dining. All applications are being submitted concurrently for review and approval.

The facility is proposed to be operated 24 hours, 7 days per week. The anticipated number of employees is 24 (20 full-time, 4 part-time). Outside storage will include miscellaneous retail items including but not limited to: propane, ice, firewood, salt, and washer fluid in season, mulch, and oil dry. There are no outdoor activities or outside entertainment.