City of Ketchum
Planning & Building

OFFICIAL USE ONLY
File Number:
Date Received:
By:
Fee Paid:
Approved Date:
Denied Date:
By:

Floodplain Development Permit and Riparian Alteration Application

NOTE: This permit is required for all properties containing 100 year floodplain area and Riparian Setbacks

PROPERTY OWNER INFORMATION			
Property Owner Name(s): 121 BADGER LANE LLC			
Property Owner's Mailing Address: P.O. BOX 14001-174 KETCHUM, ID 83340			
Phone:			
Email:			
PROJECT INFORMATION			
Project Name: BADGER RESIDENCE			
Project Representative's Name (main point of contact for project): FRAZIER CAVNESS			
Project Representative's Phone: 720.339.6798			
Project Representative's Mailing Address: P.O. BOX 14001-174 KETCHUM, ID 83340			
Project Representative's Email: frazier@presidiovistaproperties.com			
Architect's name, phone number, e-mail: RO ROCKETT DESIGN | JASON RO | 213.784.0014 | jro@rorockettdesign.com			
Landscape Architect's name, phone number, e-mail: BYLA | BEN YOUNG | 208.720.0215 | ben@byla.us			
Environmental consultant's name, phone number, e-mail: SAWTOOTH | TRENT STUMPH | 208.727.9748 | trent@sawtoothenvironmental.com			
Engineer's name, phone number, e-mail: BROCKWAY ENGINEERING | CHUCK BROCKWAY | 208-736-8543 | charles.g.brockway@brockwayeng.com>			
Project Address: 121 BADGER LANE KETCHUM, ID 83340			
Legal Description of parcel: PARCEL 4, ROCKING RANCH SUB #2 (LOCATED WITHIN SECTION 13, T.4 N., R.17 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO)			
Lot Size: 1.09 ACRES (PER SURVEY)			
Zoning District: LR			
Overlay Zones – indicate all that apply: ☒ Floodplain ☐ Floodway ☐ Riparian Zone ☐ Avalanche ☐ Mountain			
Brief description of project scope: NEW SINGLE FAMILY DWELLING: MAIN RESIDENCE + ADU W/ IN-GROUND POOL (ADU STRUCTURE OUTSIDE OF FLOODPLAIN)			
Value of Project: $ 400,000			
TYPE OF PROJECT – indicate all that apply:			
☐ New Building in Floodplain	☐ Building Addition in Floodplain	☐ Streambank Stabilization / Stream Alteration	☐ Other. Please describe:
☐ Riparian Alteration	☒ Floodplain Development		
PROPOSED SETBACKS – if project is a new building or an addition to an existing building			
Front: 15	Side: 15	Side: 15	Rear: 20
ADDITIONAL INFORMATION			
Will fill or excavation be required in floodplain, floodway or riparian zone? Yes ☒ No ☐			
If Yes, Amount in Cubic Yards: Fill: 225.3 CY Excavation: 270.9 CY			
Will Existing Trees or Vegetation be Removed? Yes ☒ No ☐			
Will new trees or vegetation be planted? Yes ☒ No ☐			

Applicant agrees in the event of a dispute concerning the interpretation or enforcement of the Floodplain Management Overlay Application, in which the City of Ketchum is the prevailing party, to pay reasonable attorney fees, including attorney fees on appeal, and expenses of the City of Ketchum. I, the undersigned, certify that all information submitted with and upon this application form is true and accurate to the best of my knowledge and belief.

2/27/2023

Signature of Owner/Representative — Date

APPLICATION CHECKLIST

Please utilize and submit the checklist on the following pages to ensure a complete application.

Floodplain management overlay application certification of completeness is based on submittal of all applicable items on this checklist.

Use for:

- Floodplain Development Permit (includes stream Alteration / streambank stabilization)
- Riparian Alteration

Project name: 121 BADGER LANE RESIDENCE

Reviewed by: _____

DOCUMENTS

- ☒ One (1) digital copy of all application materials
- ☒ Application form
- ☒ Evaluation criteria narrative
- ☒ Description of proposed development
- ☒ Specifications for building construction and materials, flood proofing, filling, grading, dredging, channel improvement/changes and utilities
- ☒ Elevation and/or flood proofing certification prepared by a professional engineer for existing and proposed residential and nonresidential structures located partially or wholly in the regulatory floodplain. Said floodproofing methods shall meet the criteria in subsection 17.88.060.B of the Ketchum Municipal Code.
- N/A ☐ Copy of letter of map amendment based on fill (LOMA-F) application for any proposed fill in the floodplain. LOMA-F approval shall be obtained from FEMA prior to issuance of a floodplain development permit.

  PROJECT IS NOT PROPOSING TO REMOVE ANY FILL FROM THE FLOODPLAIN; SEE APPENDIX A FOR THE FEMA APPROVED LOMA CURRENTLY FOR PROPERTY

SITE SURVEY OF EXISTING CONDITIONS (prepared and stamped by a licensed engineer or surveyor) – REQUIRED FOR NEW BUILDINGS OR ADDITIONS TO BUILDINGS IN THE FLOODPLAIN AND ANY WORK WITHIN THE FLOODWAY

- ☒ Exterior boundary lines of the property together with dimensions
- ☒ Topographic survey of the real property at a minimum of one (1) foot contour intervals, significant hillsides may be a minimum of ten (10) foot contour intervals
- ☒ Location of any existing dwelling units, other structures, fill, storage of materials, drainage facilities and all improved areas (pavement) with dimensions thereof showing the setback of each structure from the nearest property line
- ☒ Location of existing channels and ditches and other significant natural features, boundaries of floodway and floodplain, including Base Flood Elevation (BFE) and other site specific information from the studies referred to in Ketchum Municipal Code, subsection 17.88.040.A.3
- ☒ Location and elevations of adjacent streets, water supply and sewer lines, including private wells and/or septic systems

- ☒ Elevation of the lowest floor (including basement) of all structures existing and proposed partially or wholly located in the one percent (1%) annual chance floodplain, including elevation to which any structure has been or will be floodproofed
- ☒ Identification of the riparian zone and the "mean high water mark," as defined in Ketchum Municipal Code
- N/A ☐ Location of previous stream alterations upstream, downstream and along both banks from subject lot
- ☒ Location of drainage ways, intermittent and year-round, including potential overflow channels or channel movement
- ☒ Location and dimensions of easements, private and public, within and adjacent to the proposed project together with the purpose thereof
- ☒ Location of all existing trees to be preserved and significant trees to be removed
- ☒ Indication of any zoning district overlay which affects the property (floodplain, mountain overlay or avalanche)
- ☒ Location of existing structures on adjacent properties

SITE PLAN – REQUIRED FOR ALL PROJECTS.

- ☒ Vicinity map
- ☒ Proposed excavation or land fill including resulting slope grades for the building pad(s), driveways and any other element of the proposed development where excavation or fill will take place
- ☒ Drainage plan including offsite improvements such as borrow ditches and culverts and including a plan for on- and off-site improvements to provide for unobstructed conveyance of floodwaters
- ☒ Location of on-site parking spaces and access thereto, including the dimensions of the spaces and the width and length of access and curb cuts
- ☒ Location and dimensions of snow storage areas
- ☒ Location of dumpster and/or garbage and recycling can storage areas, including the dimensions and proposed fencing or other screening
- ☒ Location and type of any electrical power transformers, switches and/or sectors
- ☒ Location and type of all heating, ventilation, air conditioning and other mechanical units
- ☒ Drip line of all buildings
- ☒ Percentage of the lot coverage by proposed building and parking areas together with the total square footage of the parcel of property
- ☒ Location of all proposed structures (buildings) and all improved areas (pavement, sidewalk) with dimensions thereof showing the setback of each structure from the nearest property line
- ☒ Designation of the zoning district in which the project is located
- N/A ☐ Location of any zoning district boundary line within the proposed project or the immediate vicinity thereof
- N/A ☐ For any building in the floodplain with an area below the lowest floor that is below the base flood elevation and has a ceiling height of five feet (5') or greater, the building owner shall sign a non-conversion agreement, that shall run with the property, promising not to improve, finish or otherwise convert the area below the lowest floor to living area and granting the city the right to inspect the enclosed area at its discretion. Such agreement shall be recorded at Blaine County's recorder's office

ARCHITECTURAL PLANS – REQUIRED FOR NEW BUILDINGS OR ADDITIONS TO EXISTING BUILDINGS

- ☒ Floor plans of all floors at not less than one-eighth (1/8) scale
- ☒ All exterior elevations
- ☒ Roof plan including direction of snow sliding and snow clips if applicable. Location and type of all mechanical equipment and rooftop appurtenances
- ☒ Cross-section(s) of the property and proposed building adequately establishing the natural grade, finished grade, slope of land, slope of proposed accesses and grades to all public rights-of-way

- [x] Location and type (cut sheets) of all exterior lighting
- [x] Model or computer simulation renderings, if required at pre-application design review meeting

LANDSCAPE PLAN – REQUIRED FOR ANY PROJECT PROPOSING TO ALTER VEGETATION IN THE RIPARIAN ZONE OR SPECIAL FLOOD HAZARD AREA

- [x] All existing vegetation over 2 inches in caliper, including size and species
- [x] Proposed landscaping of the project including types, quantities and sizes of trees, shrubs, ground cover and other vegetation
- [x] Proposed landscaping or other improvements within any public rights-of-way
- [x] Location, type (materials and colors) and height of walls or fences
- [x] Location of parking areas
- [x] Location of vehicular and pedestrian circulation patterns, easements and proposed improvements with regard thereto
- [x] Irrigation system for landscaping
- [x] Drainage plan including off-site improvements

STREAM ALTERATIONS / STREAMBANK STABILIZATION

- [ ] Copies of the Joint Application for Permits submitted to the U.S. army corps of engineers (USACE) and Idaho department of water resources (IDWR). Please note, USACE and IDWR approvals shall be obtained prior to issuance of a stream alteration permit.
- [ ] Copy of the USACE permit approval.
- [ ] Copy of the IDWR permit approval.
- [ ] Cross section of proposed work
- [ ] Length of stream to be worked, type of work to be done, type of equipment to be used and starting and completion dates of work

N/A

- [ ] A valley cross section showing stream channel, floodway limits, elevations of adjacent land areas, Special Flood Hazard Area boundary, floodway boundary, existing Mean High Water mark, proposed Mean High Water mark, Riparian Zone regulated by the City of Ketchum, proposed excavation, proposed fill. A profile showing the slope of the bottom of the channel or flow line of the stream may be required upon review of all other material submitted.
- [ ] For any work proposed to occur in the regulatory floodway: A no net rise certificate, including supporting calculations, prepared and stamped by an Idaho registered professional hydraulic engineer
- [ ] For any work proposed to occur in the floodway: HEC-RAS model

NO ADVERSE IMPACT STATEMENT – WHERE APPLICABLE

- [x] No Adverse Impact Statement
    - See definition of "No Adverse Impact" in section 17.08.020 of Ketchum Municipal Code.

FLOODPLAIN MANAGEMENT OVERLAY EVALUATION STANDARDS

Please provide a narrative to address each of the criteria below. REFER TO ATTACHMENT FOLLOWING APPLICATION FOR NARRATIVE

Criteria for Evaluation of Applications: The criteria of floodplain development permit applications and riparian alteration permits shall be as follows:

1. The proposal preserves or restores the inherent natural characteristics of the river, floodplain, and Riparian Zone, including riparian vegetation and wildlife habitat. Development does not alter river channel unless all stream alteration criteria for evaluation are also met.

2. No temporary construction activities, encroachment, or other disturbance into the twenty-five foot (25') Riparian Zone, including encroachment of below grade structures, shall be permitted, except for approved stream stabilization work and restoration work associated with a riparian zone that is degraded.

3. No permanent development shall occur within the twenty-five foot (25') Riparian Zone, except for approved stream stabilization work and restoration work associated with permit issued under this title, or exceptions as described below:

   a. Access to a property where no other primary access is available.

   b. Emergency access required by the Fire Department.

   c. A single defined pathways or staircases for the purpose of providing access to the river channel and in order to mitigate multiple undefined social paths.

   d. Development by the City of Ketchum

4. New or replacement planting and vegetation in the Riparian Zone shall include plantings that are low growing and have dense root systems for the purpose of stabilizing stream banks and repairing damage previously done to riparian vegetation. Examples of such plantings most commonly include red osier dogwood, common chokecherry, serviceberry, elderberry, river birch, skunk bush sumac, Beb's willow, Drummond's willow, little wild rose, gooseberry, and honeysuckle. However, in rare instances the distance from the top-of-bank to the mean high-water mark is significant and the native vegetation appropriate for the Riparian Zone are low growing, drought resistant grasses and shrubs. Replacement planting and vegetation shall be appropriate for the specific site conditions. Proposal does not include vegetation within the twenty-five foot (25') Riparian Zone that is degraded, not natural, or which does not promote bank stability.

5. Landscaping and driveway plans to accommodate the function of the floodplain allow for sheet flooding. Surface drainage is controlled and shall not adversely impact adjacent properties including driveways drained away from paved roadways. Culvert(s) under driveways may be required. Landscaping berms shall be designed to not dam or otherwise obstruct floodwaters or divert same onto roads or other public pathways.

6. Floodwater carrying capacity is not diminished by the proposal.

7. Impacts of the development on aquatic life, recreation, or water quality upstream, downstream or across the stream are not negative.

8. Building setback in excess of the minimum required along waterways is encouraged. An additional ten-foot (10') building setback beyond the required twenty-five foot (25') Riparian Zone is encouraged to provide for yards, decks and patios outside the twenty five foot (25') Riparian Zone.

9. The top of the lowest floor of a building located in, or partially within, the SFHA shall be at or above the Flood Protection Elevation (FPE). A building is considered to be partially within the SFHA if any portion of the building or appendage of the building, such as footings, attached decks, posts for upper story decks, are located within the SFHA. See section 17.88.060, figures 1 and 2 of this chapter to reference construction details. See Chapter 17.08 of this title for definition of "lowest floor."

   a. In the SFHA where Base Flood Elevations (BFEs) have been determined, the FPE shall be twenty-four inches (24") above the BFE for the subject property; twenty-four inches (24") or two (2) feet is the required freeboard in Ketchum city limits.

   b. In the SFHA where no BFE has been established, the FPE shall be at least two (2) feet above the highest adjacent grade.

10. The backfill used around the foundation in the SFHA floodplain shall provide a reasonable transition to existing grade but shall not be used to fill the parcel to any greater extent.

    a. Compensatory storage shall be required for any fill placed within the floodplain.

    b. A CLOMR-F shall be obtained prior to placement of any additional fill in the floodplain.

11. All new buildings located partially or wholly within the SFHA shall be constructed on foundations that are designed by a licensed professional engineer.

12. Driveways shall comply with City of Ketchum street standards; access for emergency vehicles has been adequately provided for by limiting flood depths in all roadways to one foot (1-ft) or less during the 1% annual chance event.

13. Landscaping or revegetation shall conceal cuts and fills required for driveways and other elements of the development.

N/A 14. (Stream alteration.) The proposal is shown to be a permanent solution and creates a stable situation.

N/A 15. (Stream alteration.) No increase to the one percent (1%) annual chance flood elevation at any location in the community, based on hydrologic and hydraulic analysis performed in accordance with standard engineering practice and has been certified and submitted with supporting calculations and a No Rise Certificate, by a registered Idaho engineer.

N/A 16. (Stream alteration.) The project has demonstrated No Adverse Impact or has demonstrated all impacts will be mitigated.

N/A 17. (Stream alteration.) The recreational use of the stream including access along any and all public pedestrian/fisher's easements and the aesthetic beauty shall not be obstructed or interfered with by the proposed work.

N/A 18. (Stream alteration.) Fish habitat shall be maintained or improved as a result of the work proposed.

N/A 19. (Stream alteration.) The proposed work shall not be in conflict with the local public interest, including, but not limited to, property values, fish and wildlife habitat, aquatic life, recreation and access to public lands and waters, aesthetic beauty of the stream and water quality.

N/A 20. (Stream alteration.) The work proposed is for the protection of the public health, safety and/or welfare such as public schools, sewage treatment plant, water and sewer distribution lines and bridges providing particularly limited or sole access to areas of habitation.

21. (Wetlands) Where development is proposed that impacts any wetland the first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with an equal amount and quality of new wetland area or riparian habitat improvement.

121 Badger Lane Floodplain Development Permit Application
121 Badger Lane LLC
Brockway Engineering, PLLC
GEP, P.E. – February 27, 2023

The following narrative discusses the City of Ketchum's criteria for Evaluation of Floodplain Development Applications. The proposed residential development at 121 Badger Lane is within an approved subdivision lot. The proposed buildings are located within the setback boundaries of the LR zoning district. There is a region (in the southwest portion of the lot) that was removed from the floodplain by a Letter of Map Amendment (LOMA) dated May 15, 2014, which can be referred to Appendix A.

The building sites for the Main House and the Accessory Dwelling Unit are chosen to strike an optimal balance between respecting the public's experience on adjacent BLM land and minimizing the structures' encroachment into the floodplain. The pristine nature of BLM land should be preserved, and the proposed Main House location provides sufficient distance from the adjacent BLM land that renders the structure as inconspicuous as possible. Simultaneously, the proposed structure's location minimizes encroachment into the floodplain, and the structure's impact to the flow of floodwaters is mitigated through thoughtful grading, landscaping, and architectural design. The proposed Accessory Dwelling Unit's location is located completely outside of the 100-year floodplain, to not disturb the flow of floodwaters at all.

The proposed Floodplain Development Application for 121 Badger Lane only applies to ground below the BFE and within the effective mapped Special Flood Hazard Area (SFHA) or 100-year flood area. (XX Site Plan L1.0) shows the property at 121 Badger Lane along with the area removed by the LOMA and the effective BFEs on the property.

The FEMA mapped floodway, Ordinary High Water Mark, and the 25' riparian setback are all located to the west of 121 Badger Ln in (XX Site Plan L1.0). The Ordinary High Water Mark was delineated using aerial imagery as it is not on the applicant's property.

1. *The proposal preserves or restores the inherent natural characteristics of the river, floodplain, and Riparian Zone, including riparian vegetation and wildlife habitat. Development does not alter river channel unless all stream alteration criteria for evaluation are also met.*

The proposed project preserves the natural characteristics of the floodplain. The project's grading plan results in more material being removed from the floodplain than being filled, this removal will increase flood storage below the BFE, and the landscape plan uses natural plantings as outlined by the Landscape Architect. Locations of structures upstream of the subject property limits flood water conveyance from the north through 121 Badger. To reiterate, the proposed grading plan for the project removes more material from the floodplain than fill placed in the floodplain and allows for an increase in flood storage.

2. *No temporary construction activities, encroachment, or other disturbance into the twenty-five foot (25') Riparian Zone, including encroachment of below grade structures, shall be permitted, except for approved stream stabilization work and restoration work associated with a riparian zone that is degraded.*

The proposed development on the property is at a distance greater than 25-ft from the Ordinary High Water Mark of the Big Wood River. No encroachment in the Riparian Zone will occur.

3. *No permanent development shall occur within the twenty-five foot (25') Riparian Zone, except for approved stream stabilization work and restoration work associated with permit issued under this title, or exceptions as described below:*
    a. *Access to a property where no other primary access is available.*
    b. *Emergency access required by the Fire Department.*
    c. *A single defined pathways or staircases for the purpose of providing access to the river channel and in order to mitigate multiple undefined social paths.*
    d. *Development by the City of Ketchum*

The proposed development on the property is at a distance greater than 25-ft from the Ordinary High Water Mark of the Big Wood River. No encroachment in the Riparian Zone will occur.

4. *New or replacement planting and vegetation in the Riparian Zone shall include plantings that are low growing and have dense root systems for the purpose of stabilizing stream banks and repairing damage previously done to riparian vegetation. Examples of such plantings most commonly include red osier dogwood, common chokecherry, serviceberry, elderberry, river birch, skunk bush sumac, Beb's willow, Drummond's willow, little wild rose, gooseberry, and honeysuckle. However, in rare instances the distance from the top-of-bank to the mean high-water mark is significant and the native vegetation appropriate for the Riparian Zone are low growing, drought resistant grasses and shrubs. Replacement planting and vegetation shall be appropriate for the specific site conditions. Proposal does not include vegetation within the twenty-five foot (25') Riparian Zone that is degraded, not natural, or which does not promote bank stability.*

The proposed development on the property is not within the Riparian Zone. The proposed landscaping plantings include the following species and quantities of plants: Abies concolor (White Fir) [quantity: 20], Abies lasiocarpa (Subalpine Fir) [quantity: 20], Populus tremuloides (Quaking Aspen) [quantity: 31], Amelanchier ainifolia (Serviceberry) [quantity: 7], Cornus servicea 'Baileyi' (Bailey's Red Twig Dogwood) [quantity: 36], Cornus Sericea 'Isanti' (Isanti Red-Osier Dogwood) [quantity: 252], Ribes alpinum (Alpine Currant) [quantity: 89], Salix bebbiana (Bebb Willow) [quantity: 10] and Bromus carinatus (Mountain Brome) [quantity: 9056 SF].

5. *Landscaping and driveway plans to accommodate the function of the floodplain allow for sheet flooding. Surface drainage is controlled and shall not adversely impact adjacent properties including driveways drained away from paved roadways. Culvert(s) under driveways may be required. Landscaping berms shall be designed to not dam or otherwise obstruct floodwaters or divert same onto roads or other public pathways.*

Driveway design elevations were originally on-grade to match existing low elevations. However, in order to comply with no more than 1-ft of sheet flooding for emergency vehicle access, some portions of the driveway are raised slightly to ensure the maximum sheet flooding across the driveway is not violated. In areas where the driveway is elevated from the natural grade, culverts will be placed under the driveway to convey flow. The existing culvert in the middle of the property will be moved and replaced, to allow conveyance of flood waters through the middle of the property. Site grading will allow for surficial water to drain off the property as has historically occurred.

6. *Floodwater carrying capacity is not diminished by the proposal.*

The proposed development has more excavation proposed (270.9 yd^3) then fill (225.3 yd^3). The proposed grading plan continues to allow surficial flows to move through the property, downstream along the floodplain as historical patterns show. There are no landscaping berms oriented at an east/west direction that would potentially diminish flood conveyance. All floodplain dimensions on the property boundaries will remain consistent. Fill placed in the floodplain is fully mitigated with excess excavation, which will result in an increase in flood storage within the property.

7. *Impacts of the development on aquatic life, recreation, or water quality upstream, downstream or across the stream are not negative.*

No adverse impacts on aquatic life, recreation, or water quality upstream, downstream or across the stream are anticipated as a result of the proposed project. The proposed development is not in the river, rather at a distance of 100 ft or greater from the river, on private property in an approved subdivision lot. During construction, appropriate sediment control measures will be implemented to minimize the limits of disturbance associated with construction activities. Sediment control measures will be left in place after construction as needed or until vegetation can be re-established to help minimize erosive impacts.

8. *Building setback in excess of the minimum required along waterways is encouraged. An additional ten-foot (10') building setback beyond the required twenty-five foot (25') Riparian Zone is encouraged to provide for yards, decks and patios outside the twenty five foot (25') Riparian Zone.*

The property boundaries for 121 Badger Lane are greater than 100 ft from the Big Wood River's Ordinary High Water Mark, and therefore this criteria is met.

9. *The top of the lowest floor of a building located in, or partially within, the SFHA shall be at or above the Flood Protection Elevation (FPE). A building is considered to be partially within the SFHA if any portion of the building or appendage of the building, such as footings, attached decks, posts for upper story decks, are located within the SFHA. See section 17.88.060, figures 1 and 2 of this chapter to reference construction details. See Chapter 17.08 of this title for definition of "lowest floor."*
    a. *In the SFHA where Base Flood Elevations (BFEs) have been determined, the FPE shall be twenty-four inches (24") above the BFE for the subject property; twenty-four inches (24") or two (2) feet is the required freeboard in Ketchum city limits.*
    b. *In the SFHA where no BFE has been established, the FPE shall be at least two (2) feet above the highest adjacent grade.*

The Main residence is only partially within the SFHA, but thus has set the finish floor elevation 24" above the BFE. The Accessory Dwelling Unit is not within the SFHA, but still has its finish floor elevation set 24" above the BFE. A small portion of the parking area is within the SFHA, but the parking area is not part of the building or an appendage of the building. The fill associated with the parking area is fully mitigated with compensatory excavation.

10. *The backfill used around the foundation in the SFHA floodplain shall provide a reasonable transition to existing grade but shall not be used to fill the parcel to any greater extent.*
    a. *Compensatory storage shall be required for any fill placed within the floodplain.*
    b. *A CLOMR-F shall be obtained prior to placement of any additional fill in the floodplain.*

It is estimated that 225.3 yd^3 will be placed within the SFHA. However, the grading plan also includes the excavation of 270.9 yd^3, which qualifies for compensatory mitigation for all fill within the floodplain, including the parking area. All fill and excavation will transition to existing grade within the property boundaries. A CLOMR-F is not required for this project, as more excavation is occurring than fill.

11. *All new buildings located partially or wholly within the SFHA shall be constructed on foundations that are designed by a licensed professional engineer.*

Both buildings to be constructed with concrete slab on grade foundations designed by licensed professional structural engineer.

12. *Driveways shall comply with City of Ketchum street standards; access for emergency vehicles has been adequately provided for by limiting flood depths in all roadways to one foot (1-ft) or less during the 1% annual chance event.*

Refer to **B.1. Element #1: Residential Structure and Driveway** section of Technical Narrative

13. *Landscaping or revegetation shall conceal cuts and fills required for driveways and other elements of the development.*

Landscaping was designed to appear as natural as possible, while enhancing aesthetics and privacy of the property. Fills for raising the driveway will be concealed. The landscaping cuts and fills on the project are south of the driveway, and the landscaping design seeks to conceal land disturbances.

14. *(Stream alteration.) The proposal is shown to be a permanent solution and creates a stable situation.*

Not applicable.

15. *(Stream alteration.) No increase to the one percent (1%) annual chance flood elevation at any location in the community, based on hydrologic and hydraulic analysis performed in accordance with standard engineering practice and has been certified and submitted with supporting calculations and a No Rise Certificate, by a registered Idaho engineer.*

Not applicable.

16. *(Stream alteration.) The project has demonstrated No Adverse Impact or has demonstrated all impacts will be mitigated.*

Not applicable.

17. *(Stream alteration.) The recreational use of the stream including access along any and all public pedestrian/fisher's easements and the aesthetic beauty shall not be obstructed or interfered with by the proposed work.*

Not applicable.

18. *(Stream alteration.) Fish habitat shall be maintained or improved as a result of the work proposed.*

Not applicable.

19. *(Stream alteration.) The proposed work shall not be in conflict with the local public interest, including, but not limited to, property values, fish and wildlife habitat, aquatic life, recreation and access to public lands and waters, aesthetic beauty of the stream and water quality.*

Not applicable.

20. *(Stream alteration.) The work proposed is for the protection of the public health, safety and/or welfare such as public schools, sewage treatment plant, water and sewer distribution lines and bridges providing particularly limited or sole access to areas of habitation.*

Not applicable.

21. *(Wetlands) Where development is proposed that impacts any wetland the first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with an equal amount and quality of new wetland area or riparian habitat improvement.*

Wetland delineation, evaluation, and proposal was conducted by Trent Stumph with Sawtooth Environmental. A 404-Joint Application was filed with the US Army Corps of Engineers regarding any wetland impacts. Please refer to the Joint Application to USACE (Appendix G) and Permit Authorization from USACE (Appendix G.1).

Technical Narrative in Support of Floodplain Development Plan for 121 Badger Lane, Ketchum, Idaho

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Brockway Engineering, PLLC
February 24, 2023

A. Existing Conditions and Hydrology

The proposed floodplain development permit is located at 121 Badger Lane, Ketchum, Idaho. Most of the property is within the effective 100-year floodplain defined by FEMA (Figure 1). Based on previous flood events in 2017, 2006, and 1986 (Figure 2A-2C), it appears that the property was not inundated by Big Wood River flood flows. However, this evaluation assumes the flood flow from the Big Wood River will inundate the property based on the effective floodplain delineation and hydraulic model.

There is an elevated high area on the property, and this high elevation area was previously excluded from the floodplain through a LOMA application filed with FEMA and approved on May 15, 2014 (Appendix A). There are low elevation areas on the property, that have been delineated as wetlands. A joint application has been submitted and approved by the US Army Corps of Engineers (See approved Joint Application). No portion of 121 Badger Lane is within the effective regulatory floodway. In addition, the Ordinary High Water Mark (OHWM) has been estimated as well as the 25-ft riparian setback (Figure 1).

B. Proposed Project

The proposed project as outlined in the Floodplain Development Permit includes the following elements:

1. Construction of a residential structure, primarily on the high elevation area, but including a small area of the effective floodplain to the east of the high elevation area. Construction includes a driveway access through the property. Fill required for the residential construction will be fully mitigated by compensatory mitigation on the property.

2. Driveway construction will require fill of a wetland area. A mitigation wetland will be constructed adjacent to the existing wetland, as outlined in the approved Joint Application and shown on the grading plan. Enhancement to the wetland in the southern portion of the property will occur to ensure wetland preservation and compensatory mitigation for fill placed in the floodplain.

3. Installation of three culverts throughout the property to connect flood flow to downgradient areas. Two culverts will be installed under the driveway, one to connect flood flows from the north and another to connect flood flows from the west. Driveway culverts will connect flood flows to wetland area, as shown in the grading plan. The third culvert will connect wetland areas, and replace an existing culvert on the property.

Each of these elements is described below, followed by a hydraulic analysis of the comprehensive project to assess the impact on the flood elevations, and an analysis of cut and fill volumes within the floodplain.

B.1. Element #1: Residential Structure and Driveway

The proposed structure footprint for 121 Badger Lane is shown on the plan set, and greater detail may will be found in the architectural plans for the project. There is no platted building envelope on the property. The majority of the structure is outside of the floodplain based on elevation and the approved LOMA. A portion of the structure does extend into the effective floodplain. Fill will be placed in the floodplain for the structure foundation and driveway access.

The driveway elevations were calculated to ensure that there was less than 1-ft of flood elevations on the driveway for emergency vehicle access. Driveway elevations are shown on the associated plan set. The effective and current model-computed floodplain in this area is minimal both in terms of depth and flow, and this activity amounts to small effects on the floodplain. Culverts will be installed to ensure that flood flows are connected to down gradient areas.

B.2. Element #2: Wetland Fill and Mitigation

A Joint Application has been filed and approved by the US Army Corps of Engineers regarding the fill and mitigation of wetlands associated with the residential construction for 121 Badger. Please review the Joint Application documents for more information regarding the wetland mitigation.

Additional removal of material within the floodplain was necessary for compensatory mitigation associated with fill in the floodplain. The compensatory mitigation removal is integrated into the landscaping plan and shown in the associated plan set.

B.3. Element #3: Culvert Installation

As stated previously, three culverts will be installed on the property to connect flood flows to down gradient areas. Culvert locations can be seen on the floodplain development permit plat maps. Two culverts will be placed under the driveway at natural lower elevation areas, at their respective locations and will hydraulically connect the area to the north and west to the mitigation wetland area. Driveway culverts were required to ensure that flood flows on the driveway were less than 1-ft depth and flood flows would not back up on neighboring properties. The culvert from the north will be a 12-inch culvert with an inlet of 5784.0 ft, a length of 30-ft,

with a slope of 3.3%. It is estimated that the north culvert can convey 3.8 cfs. The culvert from the west will be a 24”x36” pipe arch with an inlet of 5783.3 ft, a length of 76-ft, and a slope of 0.98%. It is estimated that the west culvert can convey 22 cfs.

The third culvert will be placed on the property to connect wetland areas. This culvert also replaces an existing culvert on the property. The culvert will be a 24”x36” pipe arch with an inlet of 5783.0 ft, a length of 62-ft, and a slope of 1.0%.

C. HEC-RAS model analysis

HEC-RAS 6.3 was used to model the project. Topographic data used to develop cross-sections was derived from the 2017 Blaine County LiDAR data, and detailed ground survey and topographic contour map for the project. The sources were in close agreement. The effective FEMA model was used as a starting point and verified that it duplicated the effective model. New cross-sections representing current ground conditions were inserted at three different locations on the property; these sections are shown on the attached Figure 3 and Table 1.

New sections were located at the property south boarder, approximate middle of property, and north boarder. Channel and overbank roughness and other parameters were the same as those in the effective model.

Since the LiDAR data reflects the water surface rather than the channel bottom in the Big Wood River when the flight was made (which was at low water), the channel bottom was approximated using the FEMA effective cross sections and linearly interpolating to the low elevation for each of the cross sections. The model cross-sections illustrating the baseline grades and modified project grades are attached (Appendix B).

Table 1. Cross-sections from upstream to downstream

Section	River Station	Remarks
EG	101583	Retained effective model section
Unpub	100887	Retained effective unpublished model section
Badger-3	100814	New Section
Badger-2	100706	New Section
Badger-1	100602	New Section
EF	100277	Retained effective model section
Unpub	99492	Retained effective unpublished model section
EE	98972	Retained effective model section
Unpub	98528	Retained effective unpublished model section
ED	98148	Retained effective model section

The current conditions model results are consistent with the effective model. However, the new cross-sections describe the channel in more detail between FEMA Section EF and the unpublished section. In the current conditions model, there is a lower elevation at the unpublished section at river station 100887 (Table 2). The baseline model was deemed to be a

suitable current-conditions model from which to evaluate changes due to proposed project grading.

The computed water surface elevations with the project are nearly unchanged and are zero if rounded to the nearest tenth of a foot, except for the north property line. The proposed project does show a slight 0.1-ft rise at the Badger-3 cross section (north property line). However, since the modeled flow in the left floodplain does not include the driveway or wetland culverts, the rise was determined to be negligible. This is supported by the lack of flood inundation in 1986, 2006, and 2017 and the simulated flood depth along the north property line. The simulated depth along the north property line has an average depth of 0.5-ft in both the current and proposed scenarios. Table 2 shows a comparison. The project is outside the regulatory floodway and the FEMA "no-rise" requirement does not apply. However, the city's no adverse impact statement is required. Given that the average depth of flooding along the north property line is calculated to be 0.5-ft in both the current and proposed simulations, it was determined that the no-adverse impact statement was satisfied.

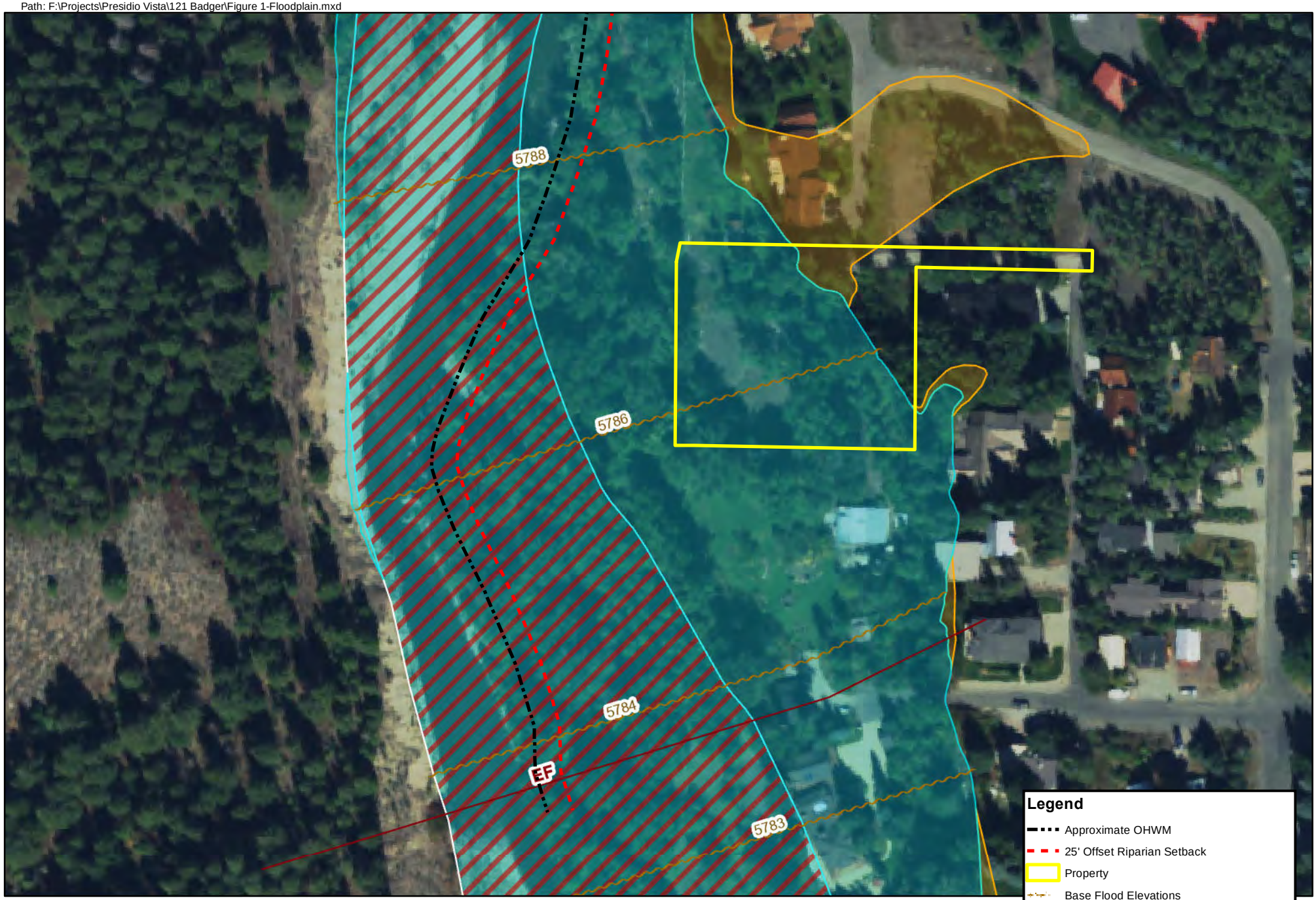
Table 2. Model-computed water surface elevations.

Section	River Sta	Water surface elevation (ft)		
		Effective	Current Conditions Baseline	With Project
EG	101583	5793.2	5793.4	5793.4
Unpub	100887	5787.9	5787.4	5787.4
Badger-3	100814	--	5786.5	5786.6
Badger-2	100706	--	5786.0	5786.0
Badger-1	100602	--	5785.5	5785.5
EF	100277	5783.9	5783.9	5783.9
Unpub	99492	5778.1	5778.1	5778.1
EE	98972	5774.3	5774.3	5774.3
Unpub	98528	5772.4	5772.4	5772.4
ED	98148	5768.9	5768.9	5768.9

D. Material Quantities

The volume of cut and fill for the grading plan were calculated from the current and project cross-sections utilized for the hydraulic modeling. Calculations are shown on the attached sheets (Appendix C). The City requires compensatory storage for all fill placed on the property at a 1-for-1 ratio. In order to calculate the volumes of fill and cut, the effective base flood elevations (BFEs) were used and interpolated through the property and the LOMA area was excluded from the analysis. If cut or fill volumes occurred at elevations higher than the BFEs, then the volume was considered outs of the floodplain by elevation. The cut volume below the calculated BFE is 271 cy. The fill volume below the calculated BFE is 225 cy.

Path: F:\Projects\Presidio Vista\121 Badger\Figure 1-Floodplain.mxd



1 inch = 0.02 miles

121 BADGER LANE

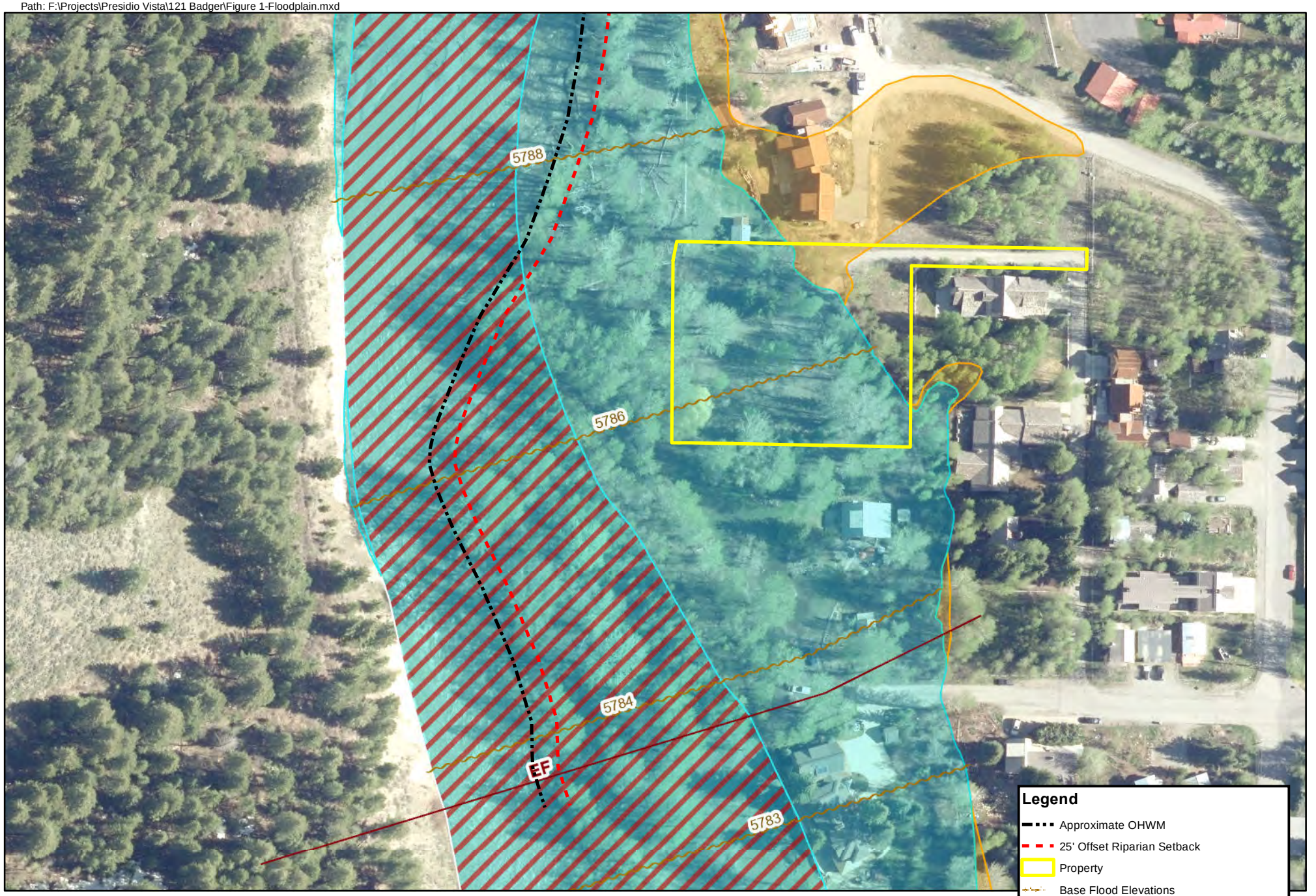
FIGURE 1

BROCKWAY ENGINEERING, PLLC.

JJJ - Date: 2/24/2023

NAIP 2021 IMAGERY

Path: F:\Projects\Presidio Vista\121 Badger\Figure 1-Floodplain.mxd



1 inch = 0.02 miles

121 BADGER LANE

FIGURE 2A

BROCKWAY ENGINEERING, PLLC.

JJJ - Date: 2/24/2023

BIG WOOD IMAGERY 5-11-2017

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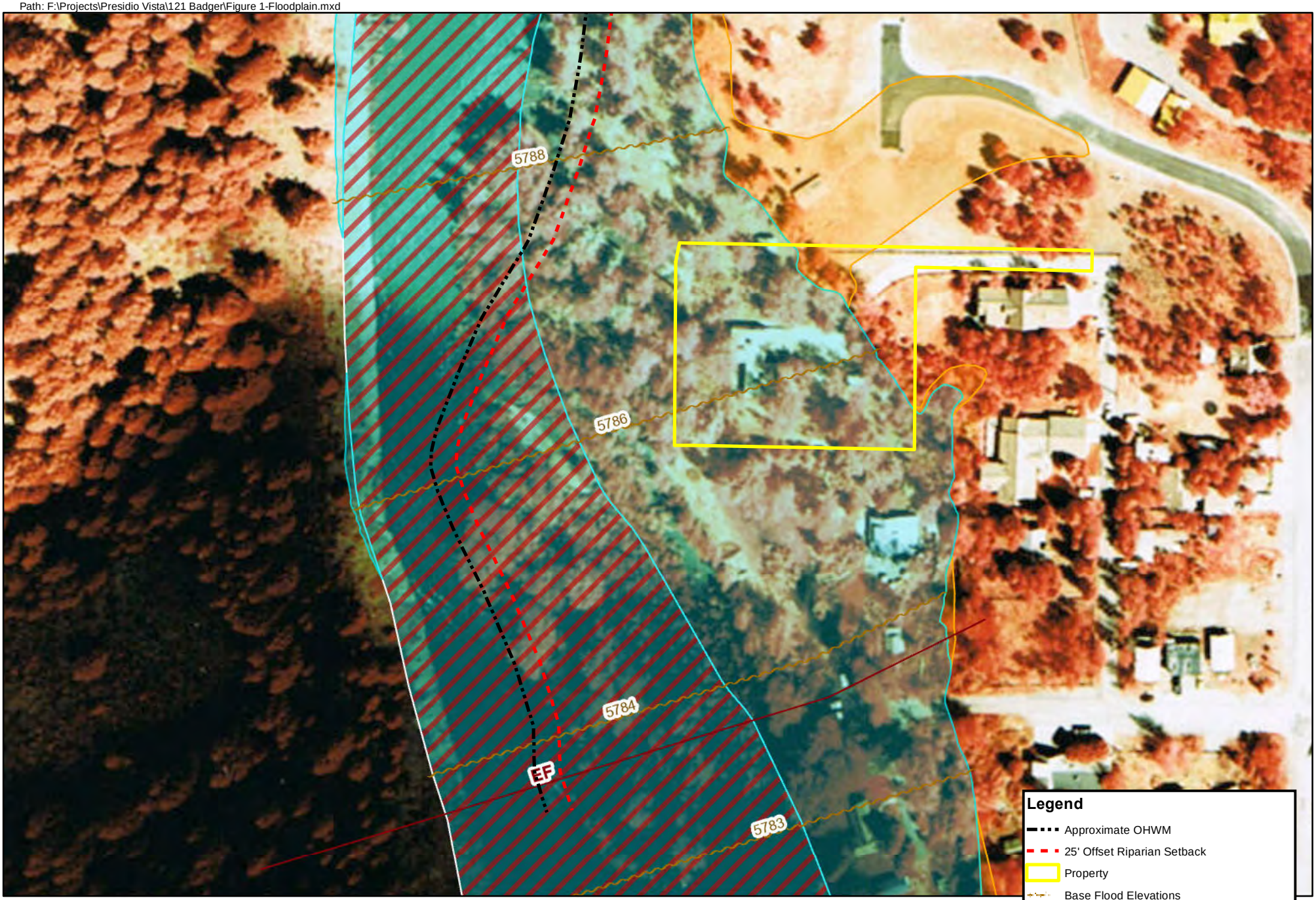

1 inch = 0.02 miles

121 BADGER LANE

FIGURE 2B

BROCKWAY ENGINEERING, PLLC.
JJJ - Date: 2/24/2023

BIG WOOD IMAGERY 5-19-2006

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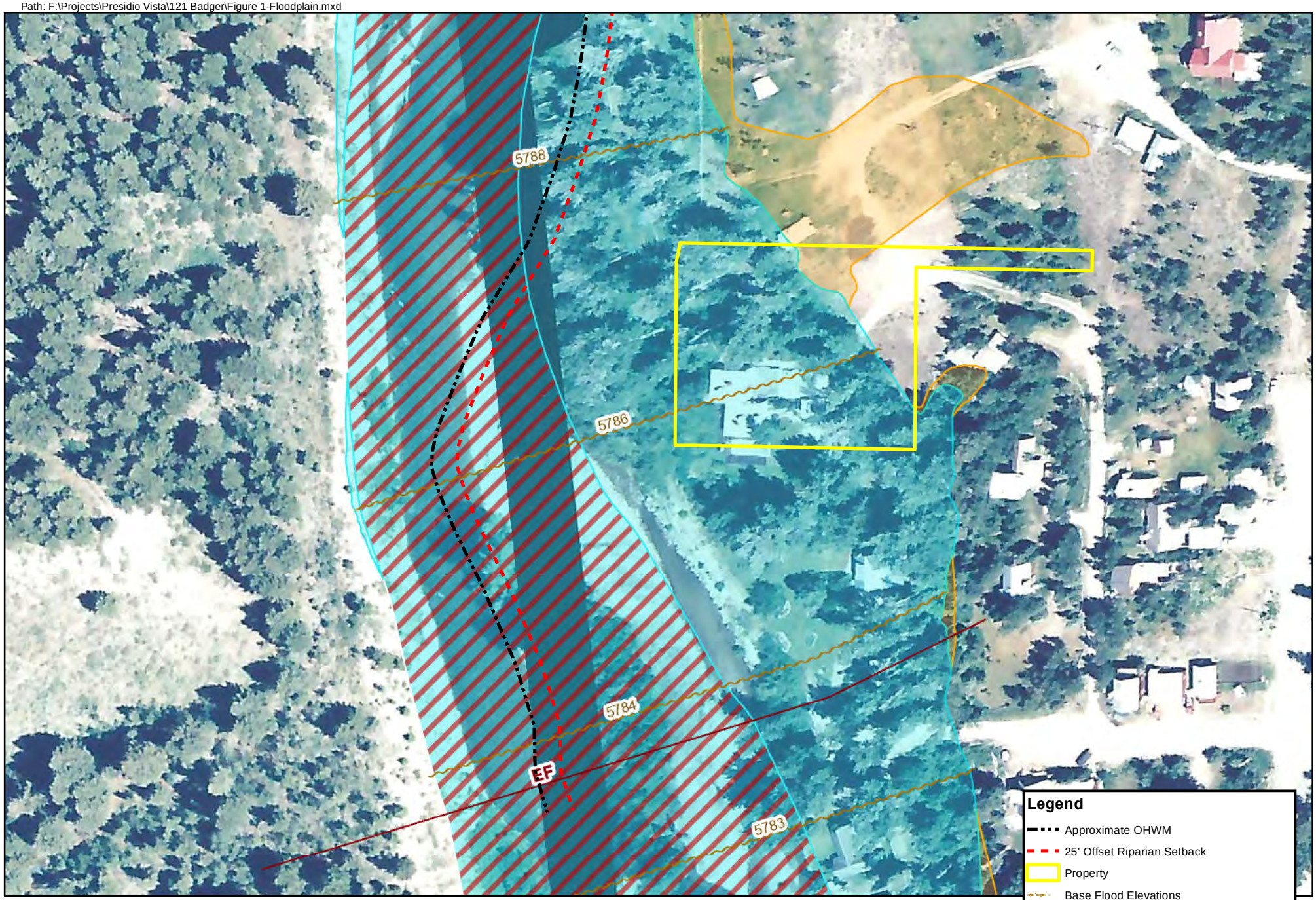

1 inch = 0.02 miles

121 BADGER LANE

FIGURE 2C

BROCKWAY ENGINEERING, PLLC.

JJJ - Date: 2/24/2023

BIG WOOD IMAGERY 6-23-1986

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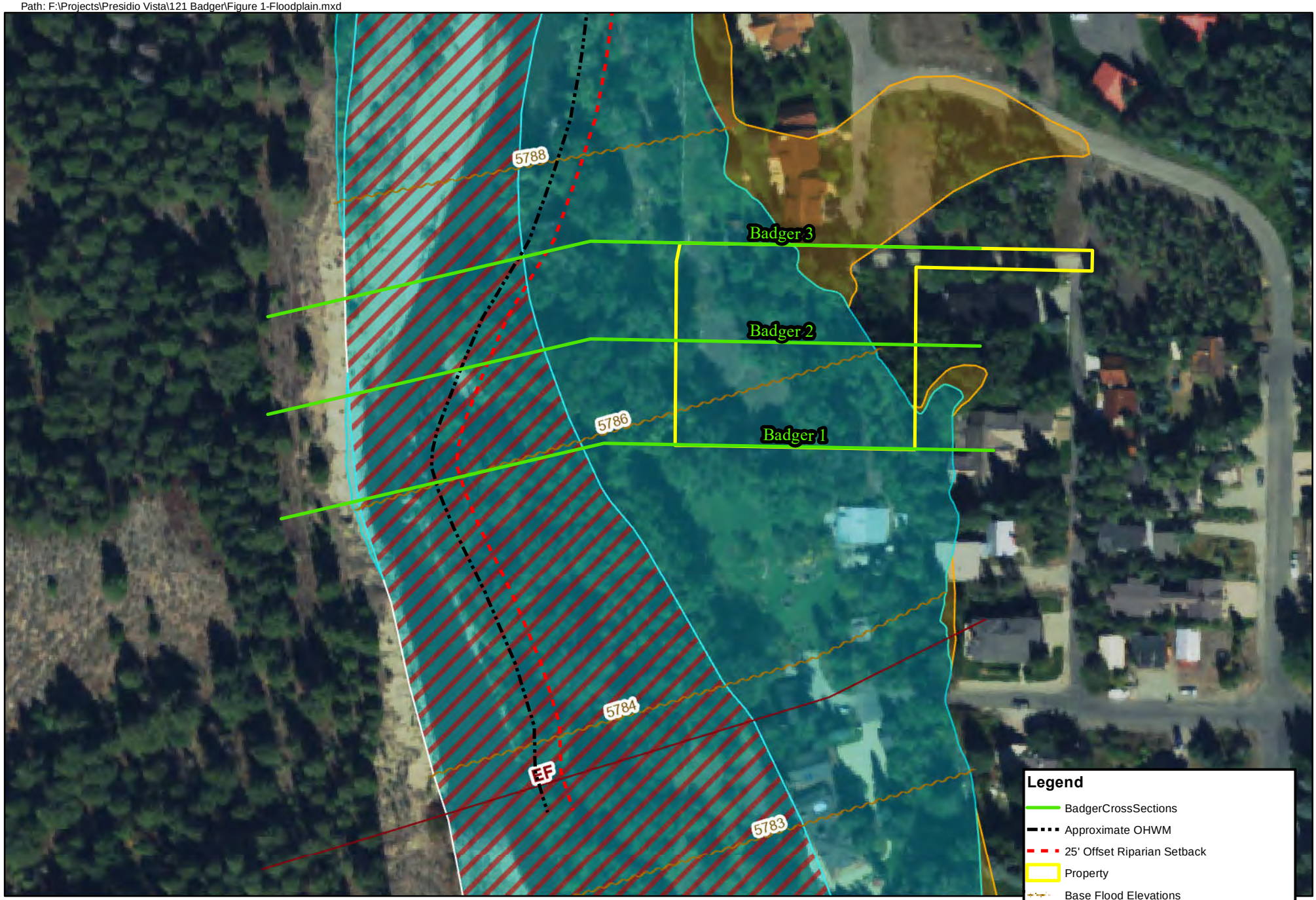


1 inch = 0.02 miles

121 BADGER LANE

FIGURE 3

BROCKWAY ENGINEERING, PLLC.

JJJ - Date: 2/24/2023

NAIP 2021 IMAGERY

Appendix A
Approved LOMA 14-10-1180A

Appendix A

Federal Emergency Management Agency

Washington, D.C. 20472

May 15, 2014

MR. SEAN FLYNN
GALENA ENGINEERING
317 NORTH RIVER STREET
HAILEY, ID 83333

CASE NO.: 14-10-1180A
COMMUNITY: CITY OF KETCHUM, BLAINE COUNTY, IDAHO
COMMUNITY NO.: 160023

DEAR MR. FLYNN:

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property described in the enclosed document is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Amendment (LOMA) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMAs. Please see the List of Enclosures below to determine which documents are enclosed. Other attachments specific to this request may be included as referenced in the Determination/Comment document. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Sincerely,

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

LIST OF ENCLOSURES:

LOMA DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator
Community Map Repository
Region

Appendix A

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP AMENDMENT
DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CITY OF KETCHUM, BLAINE COUNTY, IDAHO	Parcel 4, Rocking Ranch No. 2, as described in the Deed of Trust, recorded as Instrument No. 522368, in the Office of the County Recorder, Blaine County, Idaho The portion of property is more particularly described by the following metes and bounds:
	COMMUNITY NO.: 160023	
AFFECTED MAP PANEL	NUMBER: 16013C0442E; 16013C0461E	
	DATE: 11/26/2010; 11/26/2010	
FLOODING SOURCE: BIG WOOD RIVER		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 43.680, -114.376 SOURCE OF LAT & LONG: ARCGIS 10.1 DATUM: NAD 83

DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
4	--	Rocking Ranch No. 2	121 Badger Lane	Portion of Property	X (shaded)	5786.5 feet	--	5786.5 feet

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

LEGAL PROPERTY DESCRIPTION
PORTIONS REMAIN IN THE SFHA
STUDY UNDERWAY

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the described portion(s) of the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency

Washington, D.C. 20472

Appendix A

LETTER OF MAP AMENDMENT
DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

LEGAL PROPERTY DESCRIPTION (CONTINUED)

COMMENCING at the Northwest corner of Parcel 4, Rocking Ranch No. 2; thence S27°20'44"E, a distance of 59.98 feet to the POINT OF BEGINNING; thence S74°33'47"E, a distance of 55.05 feet; thence S07°12'11"E, a distance of 115.73 feet; thence N83°17'22"W, a distance of 77.98 feet; thence N13°03'58"W, a distance of 61.06 feet; thence N01°28'23"E, a distance of 44.38 feet; thence N53°45'34"E, a distance of 27.94 feet to the POINT OF BEGINNING

PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

STUDY UNDERWAY (This Additional Consideration applies to all properties in the LOMA DETERMINATION DOCUMENT (REMOVAL))

This determination is based on the flood data presently available. However, the Federal Emergency Management Agency is currently revising the National Flood Insurance Program (NFIP) map for the community. New flood data could be generated that may affect this property. When the new NFIP map is issued it will supersede this determination. The Federal requirement for the purchase of flood insurance will then be based on the newly revised NFIP map.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Appendix A

NOTES

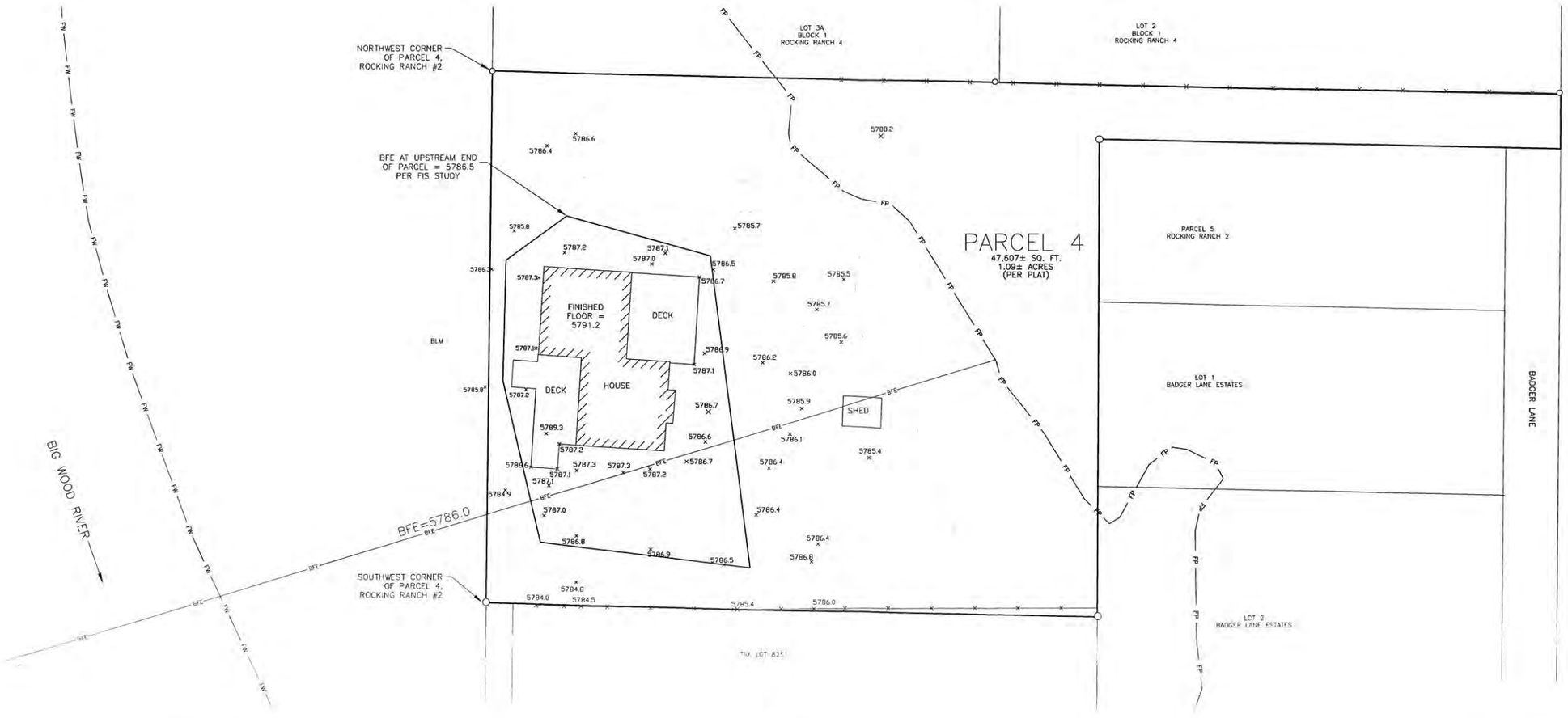
1. FLOOD INFORMATION IS BASED ON THE FLOOD INSURANCE STUDY FOR: BLAINE COUNTY, IDAHO, (UNINCORPORATED AREAS) COMMUNITY NUMBER 165167 PANEL NO. 16013C 0442 E DATED NOVEMBER 26, 2010. VERTICAL DATUM IS NAVD88.
2. THIS LOT LIES WITHIN FLOOD ZONES "AE". ZONE "AE" IS DEFINED AS: "BASE FLOOD ELEVATIONS DETERMINED".

NORTH

GRAPHIC SCALE
20 0 10 20 40
1 inch = 20 ft.

LEGEND

- Property Line
- Adjoiners Lot Line
- Fence Line
- FW — FEMA Floodway Line
- FP — FEMA Floodplain Line
- BFE — FEMA Base Flood Elevation
- 5' Contour Interval
- 1' Contour Interval
- Area to be Removed From the Floodplain
- Found 5/8" Rebar
- Found 1/2" Rebar
- 5785.7 Ground Elevation



NO	DATE	BY	REVISIONS

Galena Engineering Inc.

Civil Engineers & Land Surveyors
680 Second Avenue North
P.O. Box 425
Ketchum, Idaho 83340
(208) 726-4729
(208) 726-4783 fax
email galena@galena-engineering.com

DESIGNED BY DATE
SMF 03/28/14
DRAWN BY DATE
CHECKED BY DATE

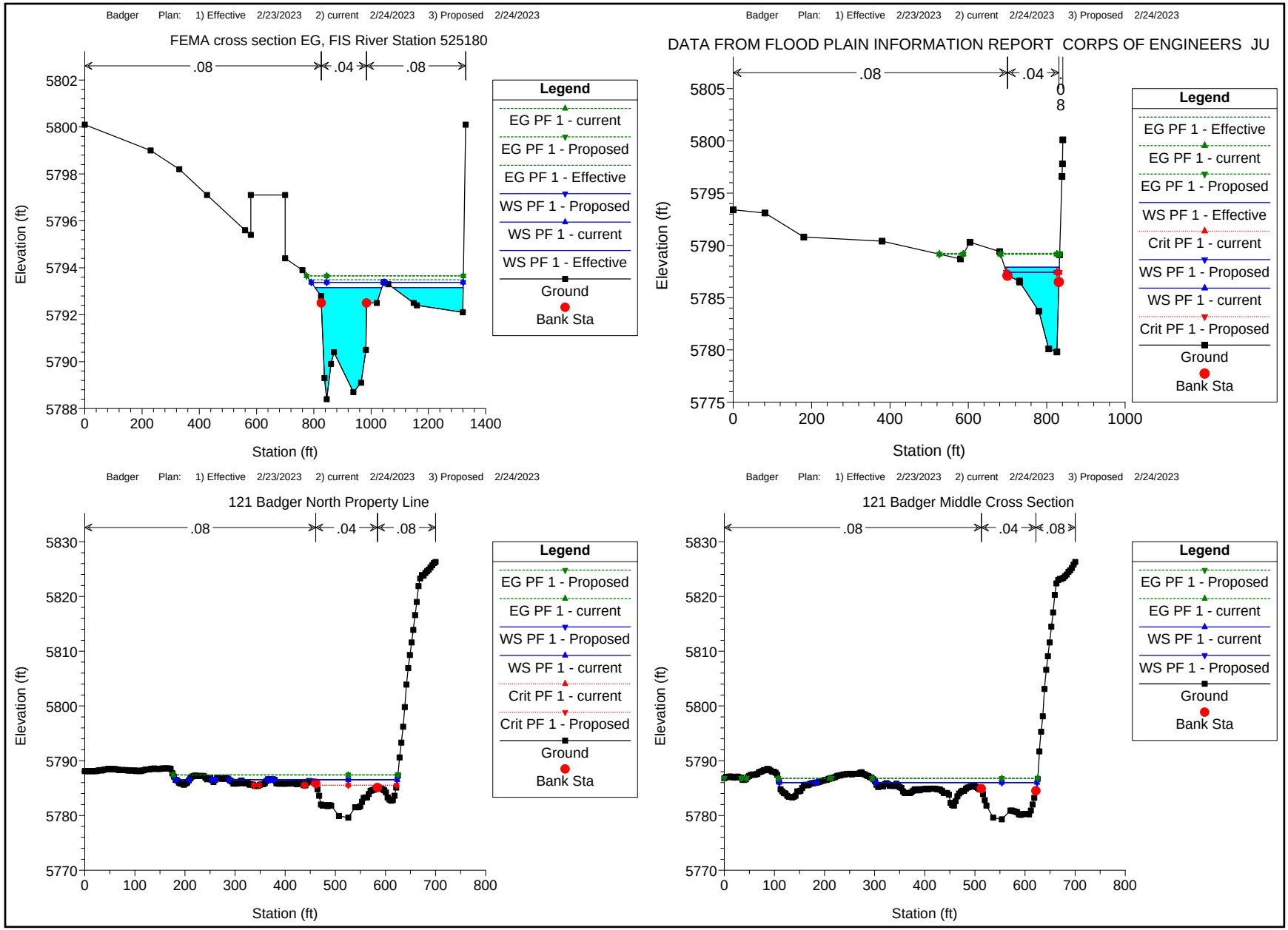
A LOMA SUBMITTAL MAP FOR
PARCEL 4, ROCKING RANCH NO. 2
WITHIN SECTION 13, T.4N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR JANET JARVIS AND STEVE GEOFFRION

PROJECT INFORMATION
C:\Jobs\6144-01\dwg\Boundary-Plat\614401_LOMA.dwg 3/28/2014 3:52:14 PM MDT

SHT 1 OF 1

Appendix B
HEC-RAS Cross Sections and Data

Appendix B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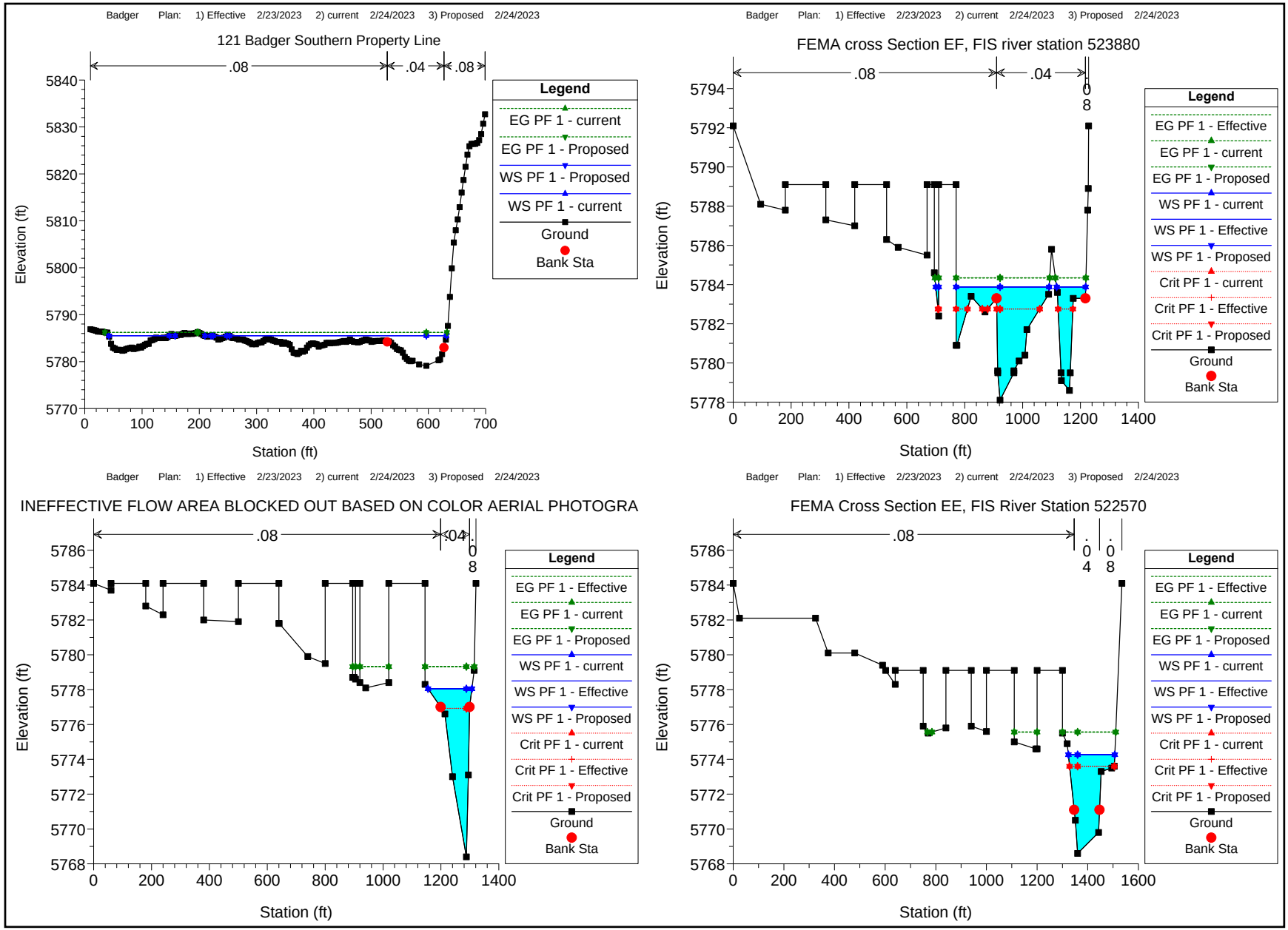
FEMA cross section EG, FIS River Station 525180
.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - current
EG PF 1 - Proposed
EG PF 1 - Effective
WS PF 1 - Proposed
WS PF 1 - current
WS PF 1 - Effective
Ground
Bank Sta
Badger Plan: 1) Effective 2/23/2023 2) current 2/24/2023 3) Proposed 2/24/2023
DATA FROM FLOOD PLAIN INFORMATION REPORT CORPS OF ENGINEERS JU
.08
.04
Elevation (ft)
Station (ft)
Legend
EG PF 1 - Effective
EG PF 1 - current
EG PF 1 - Proposed
WS PF 1 - Effective
Crit PF 1 - current
WS PF 1 - Proposed
WS PF 1 - current
Crit PF 1 - Proposed
Ground
Bank Sta
Badger Plan: 1) Effective 2/23/2023 2) current 2/24/2023 3) Proposed 2/24/2023
121 Badger North Property Line
.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - Proposed
EG PF 1 - current
WS PF 1 - Proposed
WS PF 1 - current
Crit PF 1 - current
Crit PF 1 - Proposed
Ground
Bank Sta
Badger Plan: 1) Effective 2/23/2023 2) current 2/24/2023 3) Proposed 2/24/2023
121 Badger Middle Cross Section
.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - Proposed
EG PF 1 - current
WS PF 1 - current
WS PF 1 - Proposed
Ground
Bank Sta

Appendix B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.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - current
EG PF 1 - Proposed
WS PF 1 - Proposed
WS PF 1 - current
Ground
Bank Sta
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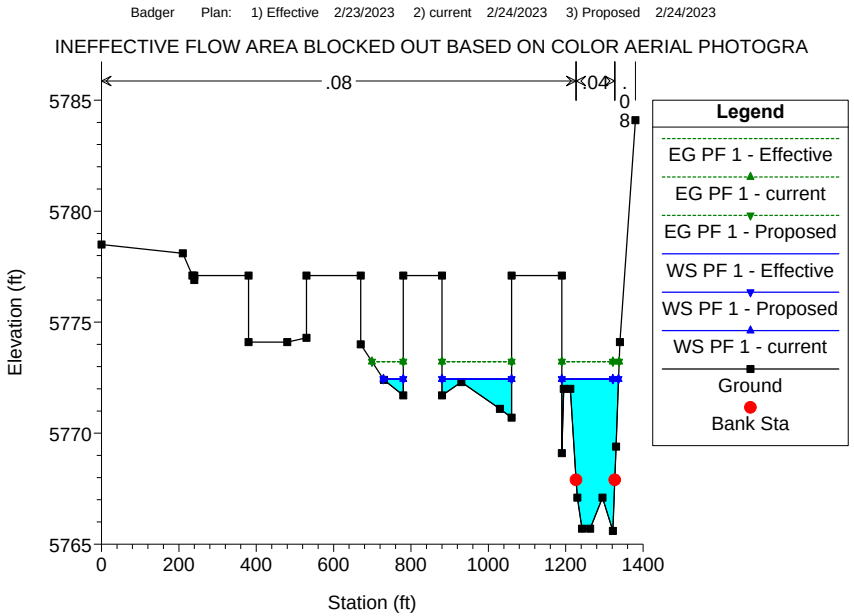
FEMA cross Section EF, FIS river station 523880
.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - Effective
EG PF 1 - current
EG PF 1 - Proposed
WS PF 1 - current
WS PF 1 - Effective
WS PF 1 - Proposed
Crit PF 1 - current
Crit PF 1 - Effective
Crit PF 1 - Proposed
Ground
Bank Sta
Badger Plan: 1) Effective 2/23/2023 2) current 2/24/2023 3) Proposed 2/24/2023
INEFFECTIVE FLOW AREA BLOCKED OUT BASED ON COLOR AERIAL PHOTOGRA
.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - Effective
EG PF 1 - current
EG PF 1 - Proposed
WS PF 1 - current
WS PF 1 - Effective
WS PF 1 - Proposed
Crit PF 1 - current
Crit PF 1 - Effective
Crit PF 1 - Proposed
Ground
Bank Sta
Badger Plan: 1) Effective 2/23/2023 2) current 2/24/2023 3) Proposed 2/24/2023
FEMA Cross Section EE, FIS River Station 522570
.08
.04
.08
Elevation (ft)
Station (ft)
Legend
EG PF 1 - Effective
EG PF 1 - current
EG PF 1 - Proposed
WS PF 1 - current
WS PF 1 - Effective
WS PF 1 - Proposed
Crit PF 1 - current
Crit PF 1 - Effective
Crit PF 1 - Proposed
Ground
Bank Sta

Appendix B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INEFFECTIVE FLOW AREA BLOCKED OUT BASED ON COLOR AERIAL PHOTOGRA
.08
.04
.08
Elevation (ft)
5785
5780
5775
5770
5765
0
200
400
600
800
1000
1200
1400
Station (ft)
Legend
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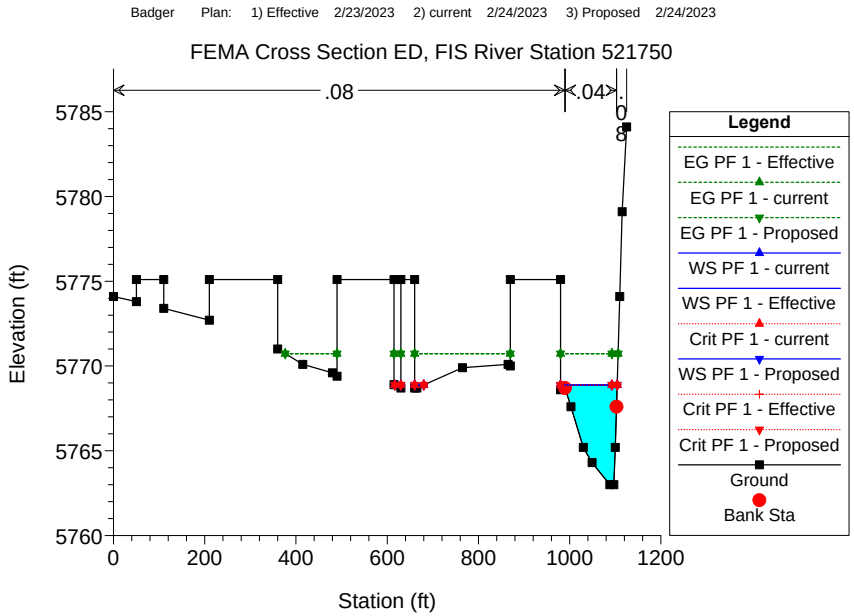
EG PF 1 - Proposed
WS PF 1 - Effective
WS PF 1 - Proposed
WS PF 1 - current
Ground
Bank Sta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.08
.04
.08
Elevation (ft)
5785
5780
5775
5770
5765
5760
0
200
400
600
800
1000
1200
Station (ft)
Legend
EG PF 1 - Effective
EG PF 1 - current
EG PF 1 - Proposed
WS PF 1 - current
WS PF 1 - Effective
Crit PF 1 - current
WS PF 1 - Proposed
Crit PF 1 - Effective
Crit PF 1 - Proposed
Ground
Bank Sta

Plan: Effective RIVER-1 Reach-1 RS: 101583 Profile: PF 1

E.G. Elev (ft)	5793.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5793.15	Reach Len. (ft)	520.00	696.00	730.00
Crit W.S. (ft)		Flow Area (sq ft)	4.22	569.63	206.43
E.G. Slope (ft/ft)	0.003012	Area (sq ft)	4.22	569.63	206.43
Q Total (cfs)	2880.00	Flow (cfs)	1.43	2713.34	165.23
Top Width (ft)	478.61	Top Width (ft)	21.95	158.00	298.67
Vel Total (ft/s)	3.69	Avg. Vel. (ft/s)	0.34	4.76	0.80
Max Chl Dpth (ft)	4.75	Hydr. Depth (ft)	0.19	3.61	0.69
Conv. Total (cfs)	52475.7	Conv. (cfs)	26.0	49439.1	3010.6
Length Wtd. (ft)	696.64	Wetted Per. (ft)	21.99	159.50	299.05
Min Ch El (ft)	5788.40	Shear (lb/sq ft)	0.04	0.67	0.13
Alpha	1.57	Stream Power (lb/ft s)	0.01	3.20	0.10
Frctn Loss (ft)	4.14	Cum Volume (acre-ft)	11.42	86.67	7.04
C & E Loss (ft)	0.10	Cum SA (acres)	12.74	23.34	6.51

Plan: Effective RIVER-1 Reach-1 RS: 100887 Profile: PF 1

E.G. Elev (ft)	5789.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.33	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5787.91	Reach Len. (ft)	560.00	610.00	760.00
Crit W.S. (ft)		Flow Area (sq ft)	2.82	511.83	0.72
E.G. Slope (ft/ft)	0.010473	Area (sq ft)	2.82	511.83	0.72
Q Total (cfs)	4740.00	Flow (cfs)	2.91	4736.32	0.76
Top Width (ft)	139.13	Top Width (ft)	7.01	131.10	1.03
Vel Total (ft/s)	9.20	Avg. Vel. (ft/s)	1.03	9.25	1.06
Max Chl Dpth (ft)	8.11	Hydr. Depth (ft)	0.40	3.90	0.70
Conv. Total (cfs)	46317.9	Conv. (cfs)	28.5	46281.9	7.5
Length Wtd. (ft)	608.49	Wetted Per. (ft)	7.05	134.77	1.74
Min Ch El (ft)	5779.80	Shear (lb/sq ft)	0.26	2.48	0.27
Alpha	1.01	Stream Power (lb/ft s)	0.27	22.98	0.29
Frctn Loss (ft)	4.64	Cum Volume (acre-ft)	11.38	78.03	5.30
C & E Loss (ft)	0.26	Cum SA (acres)	12.56	21.03	4.00

Plan: Effective RIVER-1 Reach-1 RS: 100277 Profile: PF 1

E.G. Elev (ft)	5784.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5783.88	Reach Len. (ft)	600.00	785.00	800.00
Crit W.S. (ft)	5782.76	Flow Area (sq ft)	180.61	794.65	0.30
E.G. Slope (ft/ft)	0.005789	Area (sq ft)	180.61	794.65	0.30
Q Total (cfs)	4740.00	Flow (cfs)	285.73	4454.10	0.17
Top Width (ft)	432.32	Top Width (ft)	150.09	281.20	1.03
Vel Total (ft/s)	4.86	Avg. Vel. (ft/s)	1.58	5.61	0.57
Max Chl Dpth (ft)	5.78	Hydr. Depth (ft)	1.20	2.83	0.29
Conv. Total (cfs)	62295.7	Conv. (cfs)	3755.2	58538.2	2.2
Length Wtd. (ft)	778.98	Wetted Per. (ft)	154.73	284.57	1.18
Min Ch El (ft)	5778.10	Shear (lb/sq ft)	0.42	1.01	0.09
Alpha	1.26	Stream Power (lb/ft s)	0.67	5.66	0.05
Frctn Loss (ft)	4.94	Cum Volume (acre-ft)	10.20	68.88	5.29
C & E Loss (ft)	0.08	Cum SA (acres)	11.55	18.14	3.98

Plan: Effective RIVER-1 Reach-1 RS: 99492 Profile: PF 1

E.G. Elev (ft)	5779.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5778.05	Reach Len. (ft)	420.00	520.00	570.00
Crit W.S. (ft)	5776.92	Flow Area (sq ft)	22.74	518.71	4.20
E.G. Slope (ft/ft)	0.006977	Area (sq ft)	22.74	518.71	4.20
Q Total (cfs)	4740.00	Flow (cfs)	22.92	4712.87	4.21
Top Width (ft)	151.46	Top Width (ft)	43.43	100.00	8.03
Vel Total (ft/s)	8.69	Avg. Vel. (ft/s)	1.01	9.09	1.00
Max Chl Dpth (ft)	9.65	Hydr. Depth (ft)	0.52	5.19	0.52
Conv. Total (cfs)	56748.6	Conv. (cfs)	274.4	56423.7	50.5
Length Wtd. (ft)	519.41	Wetted Per. (ft)	43.44	103.52	8.10
Min Ch El (ft)	5768.40	Shear (lb/sq ft)	0.23	2.18	0.23
Alpha	1.09	Stream Power (lb/ft s)	0.23	19.83	0.23
Frctn Loss (ft)	3.76	Cum Volume (acre-ft)	8.80	57.05	5.25
C & E Loss (ft)	0.00	Cum SA (acres)	10.22	14.70	3.90

Plan: Effective RIVER-1 Reach-1 RS: 98972 Profile: PF 1

E.G. Elev (ft)	5775.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5774.27	Reach Len. (ft)	444.00	444.00	444.00
Crit W.S. (ft)	5773.60	Flow Area (sq ft)	36.54	491.96	57.19
E.G. Slope (ft/ft)	0.007527	Area (sq ft)	36.54	491.96	57.19
Q Total (cfs)	4740.00	Flow (cfs)	79.47	4571.94	88.59
Top Width (ft)	183.28	Top Width (ft)	23.08	100.00	60.20
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	2.18	9.29	1.55
Max Chl Dpth (ft)	5.67	Hydr. Depth (ft)	1.58	4.92	0.95
Conv. Total (cfs)	54634.9	Conv. (cfs)	916.0	52697.8	1021.1
Length Wtd. (ft)	444.00	Wetted Per. (ft)	23.30	100.47	60.69
Min Ch El (ft)	5768.60	Shear (lb/sq ft)	0.74	2.30	0.44
Alpha	1.27	Stream Power (lb/ft s)	1.60	21.38	0.69
Frctn Loss (ft)	2.19	Cum Volume (acre-ft)	8.51	51.02	4.85
C & E Loss (ft)	0.15	Cum SA (acres)	9.90	13.51	3.45

Plan: Effective RIVER-1 Reach-1 RS: 98528 Profile: PF 1

E.G. Elev (ft)	5773.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5772.44	Reach Len. (ft)	360.00	380.00	390.00
Crit W.S. (ft)		Flow Area (sq ft)	215.22	614.71	21.56
E.G. Slope (ft/ft)	0.003468	Area (sq ft)	215.22	614.71	21.56
Q Total (cfs)	4740.00	Flow (cfs)	212.38	4489.73	37.90
Top Width (ft)	377.89	Top Width (ft)	268.33	100.00	9.56
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	0.99	7.30	1.76
Max Chl Dpth (ft)	6.84	Hydr. Depth (ft)	0.80	6.15	2.25
Conv. Total (cfs)	80487.8	Conv. (cfs)	3606.3	76238.0	643.5
Length Wtd. (ft)	379.59	Wetted Per. (ft)	276.23	100.77	10.59
Min Ch El (ft)	5765.60	Shear (lb/sq ft)	0.17	1.32	0.44
Alpha	1.63	Stream Power (lb/ft s)	0.17	9.65	0.78
Frctn Loss (ft)	2.38	Cum Volume (acre-ft)	7.23	45.38	4.45
C & E Loss (ft)	0.11	Cum SA (acres)	8.41	12.49	3.10

Plan: Effective RIVER-1 Reach-1 RS: 98148 Profile: PF 1

E.G. Elev (ft)	5770.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.85	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5768.88	Reach Len. (ft)	600.00	598.00	560.00
Crit W.S. (ft)	5768.88	Flow Area (sq ft)	5.75	433.35	0.92
E.G. Slope (ft/ft)	0.014673	Area (sq ft)	5.75	433.35	0.92
Q Total (cfs)	4740.00	Flow (cfs)	3.61	4735.12	1.26
Top Width (ft)	157.61	Top Width (ft)	43.47	112.70	1.44
Vel Total (ft/s)	10.77	Avg. Vel. (ft/s)	0.63	10.93	1.38
Max Chl Dpth (ft)	5.88	Hydr. Depth (ft)	0.13	3.85	0.64
Conv. Total (cfs)	39130.3	Conv. (cfs)	29.8	39090.0	10.4
Length Wtd. (ft)	597.93	Wetted Per. (ft)	44.12	114.53	1.92
Min Ch El (ft)	5763.00	Shear (lb/sq ft)	0.12	3.47	0.44
Alpha	1.03	Stream Power (lb/ft s)	0.08	37.87	0.60
Frctn Loss (ft)	3.09	Cum Volume (acre-ft)	6.31	40.80	4.35
C & E Loss (ft)	0.47	Cum SA (acres)	7.13	11.56	3.05

Plan: current RIVER-1 Reach-1 RS: 101583 Profile: PF 1

E.G. Elev (ft)	5793.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5793.38	Reach Len. (ft)	520.00	696.00	730.00
Crit W.S. (ft)		Flow Area (sq ft)	10.57	604.81	276.51
E.G. Slope (ft/ft)	0.002362	Area (sq ft)	10.57	604.81	276.51
Q Total (cfs)	2880.00	Flow (cfs)	4.28	2654.96	220.76
Top Width (ft)	526.42	Top Width (ft)	35.10	158.00	333.32
Vel Total (ft/s)	3.23	Avg. Vel. (ft/s)	0.41	4.39	0.80
Max Chl Dpth (ft)	4.98	Hydr. Depth (ft)	0.30	3.83	0.83
Conv. Total (cfs)	59262.7	Conv. (cfs)	88.1	54632.0	4542.7
Length Wtd. (ft)	696.88	Wetted Per. (ft)	35.15	159.50	333.78
Min Ch El (ft)	5788.40	Shear (lb/sq ft)	0.04	0.56	0.12
Alpha	1.71	Stream Power (lb/ft s)	0.02	2.45	0.10
Frctn Loss (ft)	4.35	Cum Volume (acre-ft)	14.71	85.51	7.89
C & E Loss (ft)	0.15	Cum SA (acres)	15.18	22.62	6.92

Plan: current RIVER-1 Reach-1 RS: 100887 Profile: PF 1

E.G. Elev (ft)	5789.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5787.43	Reach Len. (ft)	67.00	73.00	91.00
Crit W.S. (ft)	5787.43	Flow Area (sq ft)	0.46	448.96	0.31
E.G. Slope (ft/ft)	0.016230	Area (sq ft)	0.46	448.96	0.31
Q Total (cfs)	4740.00	Flow (cfs)	0.33	4739.36	0.31
Top Width (ft)	134.61	Top Width (ft)	2.84	131.10	0.68
Vel Total (ft/s)	10.54	Avg. Vel. (ft/s)	0.70	10.56	1.00
Max Chl Dpth (ft)	7.63	Hydr. Depth (ft)	0.16	3.42	0.46
Conv. Total (cfs)	37206.5	Conv. (cfs)	2.6	37201.5	2.5
Length Wtd. (ft)	73.39	Wetted Per. (ft)	2.86	134.77	1.15
Min Ch El (ft)	5779.80	Shear (lb/sq ft)	0.16	3.38	0.28
Alpha	1.00	Stream Power (lb/ft s)	0.12	35.63	0.28
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	14.65	77.09	5.57
C & E Loss (ft)	0.25	Cum SA (acres)	14.96	20.32	4.12

Plan: current RIVER-1 Reach-1 RS: 100814 Profile: PF 1

E.G. Elev (ft)	5787.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5786.50	Reach Len. (ft)	118.70	118.70	118.70
Crit W.S. (ft)	5785.53	Flow Area (sq ft)	113.82	557.54	95.67
E.G. Slope (ft/ft)	0.006042	Area (sq ft)	113.82	557.54	95.67
Q Total (cfs)	4740.00	Flow (cfs)	117.10	4379.01	243.89
Top Width (ft)	355.43	Top Width (ft)	192.66	123.00	39.77
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)	1.03	7.85	2.55
Max Chl Dpth (ft)	6.90	Hydr. Depth (ft)	0.59	4.53	2.41
Conv. Total (cfs)	60979.2	Conv. (cfs)	1506.5	56335.2	3137.6
Length Wtd. (ft)	118.70	Wetted Per. (ft)	193.14	124.29	40.78
Min Ch El (ft)	5779.60	Shear (lb/sq ft)	0.22	1.69	0.89
Alpha	1.50	Stream Power (lb/ft s)	0.23	13.29	2.26
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	14.56	76.25	5.47
C & E Loss (ft)	0.05	Cum SA (acres)	14.81	20.10	4.08

Plan: current RIVER-1 Reach-1 RS: 100706 Profile: PF 1

E.G. Elev (ft)	5786.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5786.02	Reach Len. (ft)	104.20	104.20	104.20
Crit W.S. (ft)		Flow Area (sq ft)	383.16	575.23	1.79
E.G. Slope (ft/ft)	0.004240	Area (sq ft)	383.16	575.23	1.79
Q Total (cfs)	4740.00	Flow (cfs)	559.88	4178.51	1.61
Top Width (ft)	398.45	Top Width (ft)	287.00	109.10	2.35
Vel Total (ft/s)	4.94	Avg. Vel. (ft/s)	1.46	7.26	0.90
Max Chl Dpth (ft)	6.72	Hydr. Depth (ft)	1.34	5.27	0.76
Conv. Total (cfs)	72793.1	Conv. (cfs)	8598.2	64170.2	24.7
Length Wtd. (ft)	104.20	Wetted Per. (ft)	288.56	110.54	2.80
Min Ch El (ft)	5779.30	Shear (lb/sq ft)	0.35	1.38	0.17
Alpha	1.92	Stream Power (lb/ft s)	0.51	10.01	0.15
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	13.88	74.70	5.33
C & E Loss (ft)	0.00	Cum SA (acres)	14.15	19.79	4.02

Plan: current RIVER-1 Reach-1 RS: 100602 Profile: PF 1

E.G. Elev (ft)	5786.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5785.52	Reach Len. (ft)	270.10	320.10	470.10
Crit W.S. (ft)		Flow Area (sq ft)	621.21	454.57	6.05
E.G. Slope (ft/ft)	0.005824	Area (sq ft)	621.21	454.57	6.05
Q Total (cfs)	4740.00	Flow (cfs)	1192.52	3537.82	9.66
Top Width (ft)	520.21	Top Width (ft)	416.76	99.10	4.35
Vel Total (ft/s)	4.38	Avg. Vel. (ft/s)	1.92	7.78	1.60
Max Chl Dpth (ft)	6.41	Hydr. Depth (ft)	1.49	4.59	1.39
Conv. Total (cfs)	62111.3	Conv. (cfs)	15626.3	46358.4	126.6
Length Wtd. (ft)	312.46	Wetted Per. (ft)	418.30	99.93	5.06
Min Ch El (ft)	5779.10	Shear (lb/sq ft)	0.54	1.65	0.43
Alpha	2.40	Stream Power (lb/ft s)	1.04	12.87	0.69
Frctn Loss (ft)	1.81	Cum Volume (acre-ft)	12.68	73.47	5.33
C & E Loss (ft)	0.08	Cum SA (acres)	13.31	19.54	4.01

Plan: current RIVER-1 Reach-1 RS: 100277 Profile: PF 1

E.G. Elev (ft)	5784.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5783.88	Reach Len. (ft)	600.00	785.00	800.00
Crit W.S. (ft)	5782.76	Flow Area (sq ft)	180.61	794.65	0.30
E.G. Slope (ft/ft)	0.005789	Area (sq ft)	180.61	794.65	0.30
Q Total (cfs)	4740.00	Flow (cfs)	285.73	4454.10	0.17
Top Width (ft)	432.32	Top Width (ft)	150.09	281.20	1.03
Vel Total (ft/s)	4.86	Avg. Vel. (ft/s)	1.58	5.61	0.57
Max Chl Dpth (ft)	5.78	Hydr. Depth (ft)	1.20	2.83	0.29
Conv. Total (cfs)	62295.7	Conv. (cfs)	3755.2	58538.2	2.2
Length Wtd. (ft)	778.98	Wetted Per. (ft)	154.73	284.57	1.18
Min Ch El (ft)	5778.10	Shear (lb/sq ft)	0.42	1.01	0.09
Alpha	1.26	Stream Power (lb/ft s)	0.67	5.66	0.05
Frctn Loss (ft)	4.94	Cum Volume (acre-ft)	10.20	68.88	5.29
C & E Loss (ft)	0.08	Cum SA (acres)	11.55	18.14	3.98

Plan: current RIVER-1 Reach-1 RS: 99492 Profile: PF 1

E.G. Elev (ft)	5779.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5778.05	Reach Len. (ft)	420.00	520.00	570.00
Crit W.S. (ft)	5776.92	Flow Area (sq ft)	22.74	518.71	4.20
E.G. Slope (ft/ft)	0.006977	Area (sq ft)	22.74	518.71	4.20
Q Total (cfs)	4740.00	Flow (cfs)	22.92	4712.87	4.21
Top Width (ft)	151.46	Top Width (ft)	43.43	100.00	8.03
Vel Total (ft/s)	8.69	Avg. Vel. (ft/s)	1.01	9.09	1.00
Max Chl Dpth (ft)	9.65	Hydr. Depth (ft)	0.52	5.19	0.52
Conv. Total (cfs)	56748.6	Conv. (cfs)	274.4	56423.7	50.5
Length Wtd. (ft)	519.41	Wetted Per. (ft)	43.44	103.52	8.10
Min Ch El (ft)	5768.40	Shear (lb/sq ft)	0.23	2.18	0.23
Alpha	1.09	Stream Power (lb/ft s)	0.23	19.83	0.23
Frctn Loss (ft)	3.76	Cum Volume (acre-ft)	8.80	57.05	5.25
C & E Loss (ft)	0.00	Cum SA (acres)	10.22	14.70	3.90

Plan: current RIVER-1 Reach-1 RS: 98972 Profile: PF 1

E.G. Elev (ft)	5775.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5774.27	Reach Len. (ft)	444.00	444.00	444.00
Crit W.S. (ft)	5773.60	Flow Area (sq ft)	36.54	491.96	57.19
E.G. Slope (ft/ft)	0.007527	Area (sq ft)	36.54	491.96	57.19
Q Total (cfs)	4740.00	Flow (cfs)	79.47	4571.94	88.59
Top Width (ft)	183.28	Top Width (ft)	23.08	100.00	60.20
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	2.18	9.29	1.55
Max Chl Dpth (ft)	5.67	Hydr. Depth (ft)	1.58	4.92	0.95
Conv. Total (cfs)	54634.9	Conv. (cfs)	916.0	52697.8	1021.1
Length Wtd. (ft)	444.00	Wetted Per. (ft)	23.30	100.47	60.69
Min Ch El (ft)	5768.60	Shear (lb/sq ft)	0.74	2.30	0.44
Alpha	1.27	Stream Power (lb/ft s)	1.60	21.38	0.69
Frctn Loss (ft)	2.19	Cum Volume (acre-ft)	8.51	51.02	4.85
C & E Loss (ft)	0.15	Cum SA (acres)	9.90	13.51	3.45

Plan: current RIVER-1 Reach-1 RS: 98528 Profile: PF 1

E.G. Elev (ft)	5773.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5772.44	Reach Len. (ft)	360.00	380.00	390.00
Crit W.S. (ft)		Flow Area (sq ft)	215.22	614.71	21.56
E.G. Slope (ft/ft)	0.003468	Area (sq ft)	215.22	614.71	21.56
Q Total (cfs)	4740.00	Flow (cfs)	212.38	4489.73	37.90
Top Width (ft)	377.89	Top Width (ft)	268.33	100.00	9.56
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	0.99	7.30	1.76
Max Chl Dpth (ft)	6.84	Hydr. Depth (ft)	0.80	6.15	2.25
Conv. Total (cfs)	80487.8	Conv. (cfs)	3606.3	76238.0	643.5
Length Wtd. (ft)	379.59	Wetted Per. (ft)	276.23	100.77	10.59
Min Ch El (ft)	5765.60	Shear (lb/sq ft)	0.17	1.32	0.44
Alpha	1.63	Stream Power (lb/ft s)	0.17	9.65	0.78
Frctn Loss (ft)	2.38	Cum Volume (acre-ft)	7.23	45.38	4.45
C & E Loss (ft)	0.11	Cum SA (acres)	8.41	12.49	3.10

Plan: current RIVER-1 Reach-1 RS: 98148 Profile: PF 1

E.G. Elev (ft)	5770.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.85	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5768.88	Reach Len. (ft)	600.00	598.00	560.00
Crit W.S. (ft)	5768.88	Flow Area (sq ft)	5.75	433.35	0.92
E.G. Slope (ft/ft)	0.014673	Area (sq ft)	5.75	433.35	0.92
Q Total (cfs)	4740.00	Flow (cfs)	3.61	4735.12	1.26
Top Width (ft)	157.61	Top Width (ft)	43.47	112.70	1.44
Vel Total (ft/s)	10.77	Avg. Vel. (ft/s)	0.63	10.93	1.38
Max Chl Dpth (ft)	5.88	Hydr. Depth (ft)	0.13	3.85	0.64
Conv. Total (cfs)	39130.3	Conv. (cfs)	29.8	39090.0	10.4
Length Wtd. (ft)	597.93	Wetted Per. (ft)	44.12	114.53	1.92
Min Ch El (ft)	5763.00	Shear (lb/sq ft)	0.12	3.47	0.44
Alpha	1.03	Stream Power (lb/ft s)	0.08	37.87	0.60
Frctn Loss (ft)	3.09	Cum Volume (acre-ft)	6.31	40.80	4.35
C & E Loss (ft)	0.47	Cum SA (acres)	7.13	11.56	3.05

Plan: Proposed RIVER-1 Reach-1 RS: 101583 Profile: PF 1

E.G. Elev (ft)	5793.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5793.38	Reach Len. (ft)	520.00	696.00	730.00
Crit W.S. (ft)		Flow Area (sq ft)	10.57	604.81	276.51
E.G. Slope (ft/ft)	0.002362	Area (sq ft)	10.57	604.81	276.51
Q Total (cfs)	2880.00	Flow (cfs)	4.28	2654.96	220.76
Top Width (ft)	526.42	Top Width (ft)	35.10	158.00	333.32
Vel Total (ft/s)	3.23	Avg. Vel. (ft/s)	0.41	4.39	0.80
Max Chl Dpth (ft)	4.98	Hydr. Depth (ft)	0.30	3.83	0.83
Conv. Total (cfs)	59262.7	Conv. (cfs)	88.1	54632.0	4542.7
Length Wtd. (ft)	696.88	Wetted Per. (ft)	35.15	159.50	333.78
Min Ch El (ft)	5788.40	Shear (lb/sq ft)	0.04	0.56	0.12
Alpha	1.71	Stream Power (lb/ft s)	0.02	2.45	0.10
Frctn Loss (ft)	4.35	Cum Volume (acre-ft)	14.47	85.52	7.89
C & E Loss (ft)	0.15	Cum SA (acres)	15.01	22.62	6.92

Plan: Proposed RIVER-1 Reach-1 RS: 100887 Profile: PF 1

E.G. Elev (ft)	5789.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5787.43	Reach Len. (ft)	67.00	73.00	91.00
Crit W.S. (ft)	5787.43	Flow Area (sq ft)	0.46	448.96	0.31
E.G. Slope (ft/ft)	0.016230	Area (sq ft)	0.46	448.96	0.31
Q Total (cfs)	4740.00	Flow (cfs)	0.33	4739.36	0.31
Top Width (ft)	134.61	Top Width (ft)	2.84	131.10	0.68
Vel Total (ft/s)	10.54	Avg. Vel. (ft/s)	0.70	10.56	1.00
Max Chl Dpth (ft)	7.63	Hydr. Depth (ft)	0.16	3.42	0.46
Conv. Total (cfs)	37206.5	Conv. (cfs)	2.6	37201.5	2.5
Length Wtd. (ft)	73.39	Wetted Per. (ft)	2.86	134.77	1.15
Min Ch El (ft)	5779.80	Shear (lb/sq ft)	0.16	3.38	0.28
Alpha	1.00	Stream Power (lb/ft s)	0.12	35.63	0.28
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	14.40	77.10	5.57
C & E Loss (ft)	0.26	Cum SA (acres)	14.78	20.32	4.12

Plan: Proposed RIVER-1 Reach-1 RS: 100814 Profile: PF 1

E.G. Elev (ft)	5787.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5786.57	Reach Len. (ft)	118.70	118.70	118.70
Crit W.S. (ft)	5785.53	Flow Area (sq ft)	126.47	565.41	98.22
E.G. Slope (ft/ft)	0.005716	Area (sq ft)	126.47	565.41	98.22
Q Total (cfs)	4740.00	Flow (cfs)	132.84	4359.81	247.36
Top Width (ft)	365.87	Top Width (ft)	203.00	123.00	39.87
Vel Total (ft/s)	6.00	Avg. Vel. (ft/s)	1.05	7.71	2.52
Max Chl Dpth (ft)	6.97	Hydr. Depth (ft)	0.62	4.60	2.46
Conv. Total (cfs)	62695.0	Conv. (cfs)	1757.0	57666.3	3271.7
Length Wtd. (ft)	118.70	Wetted Per. (ft)	203.50	124.29	40.89
Min Ch El (ft)	5779.60	Shear (lb/sq ft)	0.22	1.62	0.86
Alpha	1.53	Stream Power (lb/ft s)	0.23	12.52	2.16
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	14.30	76.25	5.47
C & E Loss (ft)	0.01	Cum SA (acres)	14.63	20.10	4.08

Plan: Proposed RIVER-1 Reach-1 RS: 100706 Profile: PF 1

E.G. Elev (ft)	5786.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5785.99	Reach Len. (ft)	104.20	104.20	104.20
Crit W.S. (ft)		Flow Area (sq ft)	275.81	571.39	1.71
E.G. Slope (ft/ft)	0.004639	Area (sq ft)	275.81	571.39	1.71
Q Total (cfs)	4740.00	Flow (cfs)	416.04	4322.38	1.58
Top Width (ft)	322.22	Top Width (ft)	210.82	109.10	2.30
Vel Total (ft/s)	5.58	Avg. Vel. (ft/s)	1.51	7.56	0.92
Max Chl Dpth (ft)	6.69	Hydr. Depth (ft)	1.31	5.24	0.74
Conv. Total (cfs)	69589.9	Conv. (cfs)	6108.0	63458.7	23.2
Length Wtd. (ft)	104.20	Wetted Per. (ft)	211.85	110.54	2.74
Min Ch El (ft)	5779.30	Shear (lb/sq ft)	0.38	1.50	0.18
Alpha	1.68	Stream Power (lb/ft s)	0.57	11.33	0.17
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	13.76	74.70	5.33
C & E Loss (ft)	0.03	Cum SA (acres)	14.06	19.79	4.02

Plan: Proposed RIVER-1 Reach-1 RS: 100602 Profile: PF 1

E.G. Elev (ft)	5786.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5785.52	Reach Len. (ft)	270.10	320.10	470.10
Crit W.S. (ft)		Flow Area (sq ft)	621.21	454.57	6.05
E.G. Slope (ft/ft)	0.005824	Area (sq ft)	621.21	454.57	6.05
Q Total (cfs)	4740.00	Flow (cfs)	1192.52	3537.82	9.66
Top Width (ft)	520.21	Top Width (ft)	416.76	99.10	4.35
Vel Total (ft/s)	4.38	Avg. Vel. (ft/s)	1.92	7.78	1.60
Max Chl Dpth (ft)	6.41	Hydr. Depth (ft)	1.49	4.59	1.39
Conv. Total (cfs)	62111.3	Conv. (cfs)	15626.3	46358.4	126.6
Length Wtd. (ft)	312.46	Wetted Per. (ft)	418.30	99.93	5.06
Min Ch El (ft)	5779.10	Shear (lb/sq ft)	0.54	1.65	0.43
Alpha	2.40	Stream Power (lb/ft s)	1.04	12.87	0.69
Frctn Loss (ft)	1.81	Cum Volume (acre-ft)	12.68	73.47	5.33
C & E Loss (ft)	0.08	Cum SA (acres)	13.31	19.54	4.01

Plan: Proposed RIVER-1 Reach-1 RS: 100277 Profile: PF 1

E.G. Elev (ft)	5784.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5783.88	Reach Len. (ft)	600.00	785.00	800.00
Crit W.S. (ft)	5782.76	Flow Area (sq ft)	180.61	794.65	0.30
E.G. Slope (ft/ft)	0.005789	Area (sq ft)	180.61	794.65	0.30
Q Total (cfs)	4740.00	Flow (cfs)	285.73	4454.10	0.17
Top Width (ft)	432.32	Top Width (ft)	150.09	281.20	1.03
Vel Total (ft/s)	4.86	Avg. Vel. (ft/s)	1.58	5.61	0.57
Max Chl Dpth (ft)	5.78	Hydr. Depth (ft)	1.20	2.83	0.29
Conv. Total (cfs)	62295.7	Conv. (cfs)	3755.2	58538.2	2.2
Length Wtd. (ft)	778.98	Wetted Per. (ft)	154.73	284.57	1.18
Min Ch El (ft)	5778.10	Shear (lb/sq ft)	0.42	1.01	0.09
Alpha	1.26	Stream Power (lb/ft s)	0.67	5.66	0.05
Frctn Loss (ft)	4.94	Cum Volume (acre-ft)	10.20	68.88	5.29
C & E Loss (ft)	0.08	Cum SA (acres)	11.55	18.14	3.98

Plan: Proposed RIVER-1 Reach-1 RS: 99492 Profile: PF 1

E.G. Elev (ft)	5779.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5778.05	Reach Len. (ft)	420.00	520.00	570.00
Crit W.S. (ft)	5776.92	Flow Area (sq ft)	22.74	518.71	4.20
E.G. Slope (ft/ft)	0.006977	Area (sq ft)	22.74	518.71	4.20
Q Total (cfs)	4740.00	Flow (cfs)	22.92	4712.87	4.21
Top Width (ft)	151.46	Top Width (ft)	43.43	100.00	8.03
Vel Total (ft/s)	8.69	Avg. Vel. (ft/s)	1.01	9.09	1.00
Max Chl Dpth (ft)	9.65	Hydr. Depth (ft)	0.52	5.19	0.52
Conv. Total (cfs)	56748.6	Conv. (cfs)	274.4	56423.7	50.5
Length Wtd. (ft)	519.41	Wetted Per. (ft)	43.44	103.52	8.10
Min Ch El (ft)	5768.40	Shear (lb/sq ft)	0.23	2.18	0.23
Alpha	1.09	Stream Power (lb/ft s)	0.23	19.83	0.23
Frctn Loss (ft)	3.76	Cum Volume (acre-ft)	8.80	57.05	5.25
C & E Loss (ft)	0.00	Cum SA (acres)	10.22	14.70	3.90

Plan: Proposed RIVER-1 Reach-1 RS: 98972 Profile: PF 1

E.G. Elev (ft)	5775.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5774.27	Reach Len. (ft)	444.00	444.00	444.00
Crit W.S. (ft)	5773.60	Flow Area (sq ft)	36.54	491.96	57.19
E.G. Slope (ft/ft)	0.007527	Area (sq ft)	36.54	491.96	57.19
Q Total (cfs)	4740.00	Flow (cfs)	79.47	4571.94	88.59
Top Width (ft)	183.28	Top Width (ft)	23.08	100.00	60.20
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	2.18	9.29	1.55
Max Chl Dpth (ft)	5.67	Hydr. Depth (ft)	1.58	4.92	0.95
Conv. Total (cfs)	54634.9	Conv. (cfs)	916.0	52697.8	1021.1
Length Wtd. (ft)	444.00	Wetted Per. (ft)	23.30	100.47	60.69
Min Ch El (ft)	5768.60	Shear (lb/sq ft)	0.74	2.30	0.44
Alpha	1.27	Stream Power (lb/ft s)	1.60	21.38	0.69
Frctn Loss (ft)	2.19	Cum Volume (acre-ft)	8.51	51.02	4.85
C & E Loss (ft)	0.15	Cum SA (acres)	9.90	13.51	3.45

Plan: Proposed RIVER-1 Reach-1 RS: 98528 Profile: PF 1

E.G. Elev (ft)	5773.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5772.44	Reach Len. (ft)	360.00	380.00	390.00
Crit W.S. (ft)		Flow Area (sq ft)	215.22	614.71	21.56
E.G. Slope (ft/ft)	0.003468	Area (sq ft)	215.22	614.71	21.56
Q Total (cfs)	4740.00	Flow (cfs)	212.38	4489.73	37.90
Top Width (ft)	377.89	Top Width (ft)	268.33	100.00	9.56
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	0.99	7.30	1.76
Max Chl Dpth (ft)	6.84	Hydr. Depth (ft)	0.80	6.15	2.25
Conv. Total (cfs)	80487.8	Conv. (cfs)	3606.3	76238.0	643.5
Length Wtd. (ft)	379.59	Wetted Per. (ft)	276.23	100.77	10.59
Min Ch El (ft)	5765.60	Shear (lb/sq ft)	0.17	1.32	0.44
Alpha	1.63	Stream Power (lb/ft s)	0.17	9.65	0.78
Frctn Loss (ft)	2.38	Cum Volume (acre-ft)	7.23	45.38	4.45
C & E Loss (ft)	0.11	Cum SA (acres)	8.41	12.49	3.10

Plan: Proposed RIVER-1 Reach-1 RS: 98148 Profile: PF 1

E.G. Elev (ft)	5770.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.85	Wt. n-Val.	0.080	0.040	0.080
W.S. Elev (ft)	5768.88	Reach Len. (ft)	600.00	598.00	560.00
Crit W.S. (ft)	5768.88	Flow Area (sq ft)	5.75	433.35	0.92
E.G. Slope (ft/ft)	0.014673	Area (sq ft)	5.75	433.35	0.92
Q Total (cfs)	4740.00	Flow (cfs)	3.61	4735.12	1.26
Top Width (ft)	157.61	Top Width (ft)	43.47	112.70	1.44
Vel Total (ft/s)	10.77	Avg. Vel. (ft/s)	0.63	10.93	1.38
Max Chl Dpth (ft)	5.88	Hydr. Depth (ft)	0.13	3.85	0.64
Conv. Total (cfs)	39130.3	Conv. (cfs)	29.8	39090.0	10.4
Length Wtd. (ft)	597.93	Wetted Per. (ft)	44.12	114.53	1.92
Min Ch El (ft)	5763.00	Shear (lb/sq ft)	0.12	3.47	0.44
Alpha	1.03	Stream Power (lb/ft s)	0.08	37.87	0.60
Frctn Loss (ft)	3.09	Cum Volume (acre-ft)	6.31	40.80	4.35
C & E Loss (ft)	0.47	Cum SA (acres)	7.13	11.56	3.05

Appendix C
Cut and Fill Calculations

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1	1541428.701	734110.155	0.00	0.00
2	1541428.952	734108.17	0.00	0.00
3	1541430.433	734110.2657	0.00	0.00
4	1541430.211	734112.2301	0.00	0.00
5	1541428.45	734112.1399	0.00	0.00
6	1541426.965	734108.4038	0.00	0.00
7	1541427.742	734106.5154	0.00	0.00
8	1541429.655	734106.8273	0.00	0.00
9	1541430.709	734108.3609	0.00	0.00
10	1541432.151	734109.8148	0.00	0.00
11	1541432.076	734111.9893	0.00	0.00
12	1541431.689	734114.1201	0.00	0.00
13	1541429.936	734114.2091	0.00	0.00
14	1541428.199	734114.1249	0.00	0.00
15	1541424.978	734108.6376	0.00	0.00
16	1541425.623	734106.8204	0.00	0.00
17	1541425.899	734105.055	0.00	0.00
18	1541427.725	734104.8045	0.00	0.00
19	1541429.668	734105.1905	0.00	0.00
20	1541431.278	734106.47	0.00	0.00
21	1541432.243	734107.9362	0.00	0.00
22	1541433.817	734108.5026	0.00	0.00
23	1541433.806	734110.4671	0.00	0.00
24	1541433.865	734112.2788	0.00	0.00
25	1541433.43	734114.0421	0.00	0.00
26	1541433.198	734116.0125	0.00	0.00
27	1541431.439	734116.1311	0.00	0.00
28	1541429.685	734116.1946	0.00	0.00
29	1541427.948	734116.1098	0.00	0.00
30	1541422.991	734108.8714	0.00	0.00
31	1541423.618	734107.0488	0.00	0.00
32	1541423.948	734105.2434	0.00	0.00
33	1541424.446	734103.3622	0.00	0.00
34	1541426.641	734103.3283	0.00	0.00
35	1541428.679	734103.3584	0.00	0.00
36	1541430.437	734103.5986	0.00	0.00
37	1541431.81	734104.7849	0.00	0.00
38	1541433.242	734106.39	0.00	0.00
39	1541435.253	734107.5253	0.00	0.00
40	1541435.552	734109.4531	0.00	0.00
41	1541435.486	734111.4231	0.00	0.00
42	1541435.287	734113.4372	0.00	0.00
43	1541435.022	734115.4069	0.00	0.00
44	1541434.774	734117.3905	0.00	0.00
45	1541432.951	734117.9954	0.00	0.00
46	1541431.188	734118.1228	0.00	0.00
47	1541429.433	734118.1806	0.00	0.00
48	1541427.697	734118.0947	0.00	0.00
49	1541421.004	734109.1052	0.00	0.00
50	1541421.627	734107.2855	0.00	0.00
51	1541421.966	734105.4979	0.00	0.00
52	1541422.292	734103.7179	0.00	0.00
53	1541422.298	734101.9722	0.00	0.00
54	1541424.036	734101.6159	0.00	0.00
55	1541425.893	734101.7367	0.00	0.00
56	1541427.918	734101.72	0.00	0.00
57	1541430.15	734101.7047	0.00	0.00
58	1541431.963	734102.632	0.00	0.00
59	1541433.527	734104.1342	0.00	0.00
60	1541434.756	734105.7696	0.00	0.00
61	1541436.559	734106.3351	0.00	0.00
62	1541437.198	734108.4124	0.00	0.00
63	1541437.219	734110.5986	0.00	0.00
64	1541437.089	734112.6146	0.00	0.00
65	1541436.875	734114.608	0.00	0.00
66	1541436.621	734116.5872	0.00	0.00
67	1541436.371	734118.5707	0.00	0.00
68	1541434.523	734119.3746	0.00	0.00
69	1541432.7	734119.9806	0.00	0.00
70	1541430.937	734120.1085	0.00	0.00
71	1541429.182	734120.1666	0.00	0.00
72	1541427.446	734120.0797	0.00	0.00
73	1541419.017	734109.339	0.00	0.00
74	1541419.638	734107.5189	0.00	0.00
75	1541419.977	734105.7299	0.00	0.00
76	1541420.269	734103.939	0.00	0.00
77	1541420.319	734102.1349	0.00	0.00
78	1541420.451	734100.315	0.02	0.00
79	1541422.416	734100.1939	0.01	0.00
80	1541424.445	734100.1114	0.01	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3852	1541415.405	734215.3567	0.45	0.00
3853	1541345.162	734144.6142	0.00	-0.25
3854	1541343.651	734143.4201	0.06	0.00
3855	1541342.036	734142.456	0.57	0.00
3856	1541340.113	734141.3577	0.00	-0.17
3857	1541337.726	734140.3828	0.00	-0.39
3858	1541337.473	734138.4094	0.00	-0.41
3859	1541335.72	734136.914	0.00	-0.57
3860	1541333.985	734135.635	0.00	-0.73
3861	1541332.24	734134.4477	0.00	-0.89
3862	1541526.769	734090.9015	0.17	0.00
3863	1541527.692	734092.6126	0.10	0.00
3864	1541529.094	734094.3122	0.01	0.00
3865	1541530.744	734096.0055	0.00	0.00
3866	1541532.189	734097.7033	0.00	0.00
3867	1541533.128	734099.4114	0.00	-0.19
3868	1541533.588	734101.1297	0.00	-0.43
3869	1541533.946	734102.8496	0.00	-0.69
3870	1541534.629	734104.5609	0.00	-0.92
3871	1541533.73	734106.3131	0.00	-1.23
3872	1541532.682	734108.066	0.00	-1.55
3873	1541533.366	734109.7727	0.00	-1.78
3874	1541534.043	734111.445	0.00	-2.01
3875	1541532.684	734113.2371	0.00	-2.41
3876	1541531.969	734115.1092	0.00	-2.60
3877	1541531.504	734117.1437	0.00	-2.60
3878	1541531.438	734119.0628	0.00	-2.60
3879	1541530.425	734120.5846	0.00	-2.60
3880	1541529.41	734122.2829	0.00	-2.60
3881	1541528.376	734123.994	0.00	-2.60
3882	1541529.254	734125.8523	0.00	-2.60
3883	1541528.275	734127.5915	0.00	-2.60
3884	1541529.148	734129.7229	0.00	-2.60
3885	1541527.918	734131.508	0.00	-2.60
3886	1541528.455	734133.9179	0.00	-2.60
3887	1541527.348	734135.5782	0.00	-2.60
3888	1541528.202	734137.4031	0.00	-2.60
3889	1541527.061	734139.0443	0.00	-2.60
3890	1541528.22	734140.4019	0.00	-2.34
3891	1541529.322	734141.8396	0.00	-2.03
3892	1541528.203	734143.497	0.00	-1.74
3893	1541527.12	734145.1772	0.00	-1.57
3894	1541526.054	734146.8685	0.00	-1.43
3895	1541527.221	734148.2725	0.00	-1.12
3896	1541528.447	734149.5918	0.00	-0.81
3897	1541527.358	734151.264	0.00	-0.72
3898	1541526.215	734152.9005	0.00	-0.65
3899	1541525.046	734154.5216	0.00	-0.65
3900	1541523.888	734156.1521	0.00	-0.60
3901	1541522.757	734157.7969	0.00	-0.51
3902	1541521.629	734159.4207	0.00	-0.43
3903	1541520.782	734161.0296	0.00	-0.38
3904	1541519.521	734162.3286	0.00	-0.38
3905	1541518.314	734163.8922	0.00	-0.39
3906	1541517.039	734165.4257	0.00	-0.39
3907	1541515.737	734166.9443	0.00	-0.13
3908	1541514.441	734168.4955	0.00	0.00
3909	1541513.02	734170.1605	0.00	0.00
3910	1541511.941	734172.0757	0.00	0.00
3911	1541510.996	734173.867	0.00	0.00
3912	1541510.206	734175.7062	0.00	0.00
3913	1541509.507	734177.578	0.00	0.00
3914	1541508.796	734179.4405	0.00	0.00
3915	1541507.949	734181.2382	0.00	0.00
3916	1541506.943	734182.9591	0.49	0.00
3917	1541505.868	734184.6453	1.63	0.00
3918	1541504.793	734186.3312	2.79	0.00
3919	1541503.729	734188.0227	3.95	0.00
3920	1541501.42	734188.443	3.79	0.00
3921	1541499.183	734188.7381	3.56	0.00
3922	1541498.11	734190.4246	4.77	0.00
3923	1541495.903	734190.6579	4.54	0.00
3924	1541493.624	734191.0008	4.42	0.00
3925	1541491.405	734191.2471	4.34	0.00
3926	1541489.208	734191.4557	4.42	0.00
3927	1541488.124	734193.1349	5.81	0.00
3928	1541486.175	734192.9592	5.68	0.00
3929	1541485.089	734194.637	6.52	0.00
3930	1541484.002	734196.3141	6.93	0.00
3931	1541482.048	734196.1443	6.63	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
81	1541426.45	734100.097	0.00	0.00
82	1541428.443	734100.1032	0.00	-0.02
83	1541430.235	734099.8692	0.00	-0.09
84	1541432.133	734100.3039	0.00	-0.06
85	1541433.522	734101.8389	0.00	0.00
86	1541435.002	734103.1105	0.00	0.00
87	1541435.831	734104.5729	0.00	0.00
88	1541437.882	734104.6928	0.00	0.00
89	1541438.35	734106.3987	0.00	0.00
90	1541438.926	734108.0599	0.00	0.00
91	1541438.874	734109.8899	0.00	0.00
92	1541438.872	734111.8807	0.00	0.00
93	1541438.707	734113.8485	0.00	0.00
94	1541438.456	734115.8409	0.00	0.00
95	1541438.211	734117.8243	0.00	0.00
96	1541437.96	734119.8074	0.00	0.00
97	1541436.12	734120.5547	0.00	0.00
98	1541434.273	734121.3589	0.00	0.00
99	1541432.449	734121.9659	0.00	0.00
100	1541430.686	734122.0942	0.00	0.00
101	1541428.931	734122.1527	0.00	0.00
102	1541427.196	734122.0646	0.00	0.00
103	1541417.03	734109.5728	0.00	0.00
104	1541417.649	734107.7524	0.00	0.00
105	1541417.989	734105.9623	0.00	0.00
106	1541418.272	734104.1643	0.00	0.00
107	1541418.328	734102.3137	0.00	0.00
108	1541418.457	734100.4117	0.03	0.00
109	1541418.725	734098.6066	0.25	0.00
110	1541420.718	734098.5478	0.18	0.00
111	1541422.72	734098.4965	0.11	0.00
112	1541424.725	734098.4468	0.04	0.00
113	1541426.732	734098.4074	0.00	-0.03
114	1541428.705	734098.3392	0.00	-0.09
115	1541430.761	734098.3107	0.00	-0.15
116	1541432.727	734098.3084	0.00	-0.20
117	1541434.202	734099.9655	0.00	-0.15
118	1541435.497	734101.6242	0.00	0.00
119	1541437.342	734103.0877	0.00	0.00
120	1541439.634	734103.2277	0.00	0.00
121	1541439.913	734104.8952	0.00	0.00
122	1541440.336	734106.6471	0.00	0.00
123	1541440.577	734108.5413	0.00	0.00
124	1541440.559	734110.5756	0.00	0.00
125	1541440.619	734112.7512	0.00	0.00
126	1541440.295	734114.9326	0.00	0.00
127	1541440.062	734116.9438	0.00	0.00
128	1541439.815	734118.9343	0.00	0.00
129	1541439.565	734120.9183	0.00	0.00
130	1541437.71	734121.7904	0.00	0.00
131	1541435.87	734122.5387	0.00	0.00
132	1541434.022	734123.3431	0.00	0.00
133	1541432.198	734123.9512	0.00	0.00
134	1541430.435	734124.08	0.00	0.00
135	1541428.68	734124.1387	0.00	0.00
136	1541426.945	734124.0496	0.00	0.00
137	1541415.043	734109.8066	0.00	0.00
138	1541415.661	734107.9859	0.00	0.00
139	1541416	734106.1944	0.00	0.00
140	1541416.28	734104.3893	0.00	0.00
141	1541416.334	734102.4928	0.00	0.00
142	1541416.466	734100.509	0.00	0.00
143	1541416.728	734098.6609	0.27	0.00
144	1541417.095	734096.9052	0.24	0.00
145	1541419.093	734096.8566	0.17	0.00
146	1541421.094	734096.8093	0.11	0.00
147	1541423.094	734096.7627	0.05	0.00
148	1541425.096	734096.7167	0.00	-0.01
149	1541427.092	734096.6668	0.00	-0.08
150	1541429.097	734096.6267	0.00	-0.13
151	1541431.099	734096.5772	0.00	-0.18
152	1541433.094	734096.5368	0.00	-0.23
153	1541434.726	734098.2231	0.00	-0.25
154	1541436.211	734099.8964	0.00	-0.19
155	1541437.378	734101.4036	0.00	0.00
156	1541439.219	734101.601	0.00	-0.03
157	1541441.204	734101.5447	0.00	-0.31
158	1541441.695	734103.2759	0.00	-0.18
159	1541441.989	734105.0394	0.00	-0.02
160	1541442.428	734106.9707	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3932	1541480.142	734195.9008	6.39	0.00
3933	1541478.082	734195.8951	5.25	0.00
3934	1541476.991	734197.5697	5.08	0.00
3935	1541474.826	734197.7224	3.81	0.00
3936	1541472.774	734197.6988	2.45	0.00
3937	1541471.683	734199.3727	1.98	0.00
3938	1541470.596	734201.0483	1.42	0.00
3939	1541468.528	734201.0637	0.49	0.00
3940	1541466.341	734201.28	0.12	0.00
3941	1541464.185	734201.4683	0.00	-0.23
3942	1541462.114	734201.6029	0.00	-0.32
3943	1541460.174	734201.9088	0.08	0.00
3944	1541458.849	734203.2322	0.04	0.00
3945	1541457.043	734203.9284	0.58	0.00
3946	1541455.089	734204.8315	1.27	0.00
3947	1541453.322	734205.3694	1.93	0.00
3948	1541451.463	734206.1353	2.37	0.00
3949	1541449.608	734206.9523	2.34	0.00
3950	1541447.761	734207.7713	2.30	0.00
3951	1541445.928	734208.468	2.26	0.00
3952	1541444.113	734209.0289	2.21	0.00
3953	1541442.285	734209.7304	2.17	0.00
3954	1541440.486	734210.2971	2.13	0.00
3955	1541440.205	734212.2556	2.29	0.00
3956	1541438.442	734212.3863	2.19	0.00
3957	1541436.716	734212.2769	2.06	0.00
3958	1541434.982	734212.2095	1.87	0.00
3959	1541433.202	734212.4934	1.69	0.00
3960	1541431.342	734213.3867	1.52	0.00
3961	1541429.537	734213.8606	1.31	0.00
3962	1541427.761	734214.1277	1.07	0.00
3963	1541425.912	734214.9532	0.83	0.00
3964	1541424.075	734215.7406	0.85	0.00
3965	1541422.241	734216.549	0.87	0.00
3966	1541420.566	734217.4562	0.85	0.00
3967	1541418.779	734217.1864	0.74	0.00
3968	1541416.84	734217.8723	0.69	0.00
3969	1541415.154	734217.3417	0.57	0.00
3970	1541344.71	734146.5632	0.00	-0.09
3971	1541343.206	734145.3702	0.06	0.00
3972	1541341.628	734144.4014	0.00	-0.02
3973	1541339.878	734143.4505	0.00	-0.20
3974	1541337.834	734142.3753	0.00	-0.39
3975	1541335.821	734140.9311	0.00	-0.58
3976	1541335.768	734138.9316	0.00	-0.57
3977	1541334.01	734137.637	0.00	-0.74
3978	1541332.264	734136.4484	0.00	-0.90
3979	1541528.769	734090.8553	0.06	0.00
3980	1541529.691	734092.5664	0.06	0.00
3981	1541531.092	734094.2658	0.00	0.00
3982	1541532.742	734095.9589	0.00	0.00
3983	1541534.186	734097.6563	0.00	0.00
3984	1541535.124	734099.364	0.00	-0.10
3985	1541535.582	734101.082	0.00	-0.34
3986	1541535.941	734102.8024	0.00	-0.59
3987	1541536.629	734104.518	0.00	-0.82
3988	1541535.724	734106.2616	0.00	-1.13
3989	1541534.685	734108.0181	0.00	-1.45
3990	1541535.355	734109.7344	0.00	-1.68
3991	1541536.171	734111.4577	0.00	-1.91
3992	1541534.469	734112.9701	0.00	-2.22
3993	1541533.886	734114.7164	0.00	-2.52
3994	1541533.619	734116.6446	0.00	-2.60
3995	1541533.394	734118.7693	0.00	-2.60
3996	1541532.417	734120.723	0.00	-2.60
3997	1541531.357	734122.4328	0.00	-2.60
3998	1541530.3	734124.1135	0.00	-2.60
3999	1541530.917	734126.0784	0.00	-2.60
4000	1541530.161	734127.7796	0.00	-2.60
4001	1541531.362	734129.1161	0.00	-2.60
4002	1541530.62	734130.8207	0.00	-2.60
4003	1541529.496	734132.2346	0.00	-2.60
4004	1541530.419	734134.0812	0.00	-2.60
4005	1541529.331	734135.7546	0.00	-2.60
4006	1541530.504	734137.1232	0.00	-2.60
4007	1541529.365	734138.764	0.00	-2.60
4008	1541530.468	734140.2021	0.00	-2.29
4009	1541531.607	734141.5849	0.00	-1.93
4010	1541530.46	734143.2235	0.00	-1.68
4011	1541529.351	734144.8878	0.00	-1.43

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
161	1541442.242	734109.117	0.00	0.00
162	1541442.258	734111.0637	0.00	0.00
163	1541442.408	734112.8984	0.00	0.00
164	1541442.041	734114.6543	0.00	0.00
165	1541441.837	734116.6285	0.00	0.00
166	1541441.6	734118.6117	0.00	0.00
167	1541441.351	734120.5968	0.00	0.00
168	1541441.1	734122.5819	0.00	0.00
169	1541439.315	734122.9022	0.00	0.00
170	1541437.459	734123.7734	0.00	0.00
171	1541435.619	734124.5226	0.00	0.00
172	1541433.771	734125.3274	0.00	0.00
173	1541431.948	734125.9365	0.00	0.00
174	1541430.184	734126.0657	0.00	0.00
175	1541428.429	734126.1248	0.00	0.00
176	1541426.694	734126.0345	0.00	0.00
177	1541413.056	734110.0404	0.00	0.00
178	1541413.673	734108.2195	0.00	0.00
179	1541414.012	734106.4267	0.00	0.00
180	1541414.288	734104.6145	0.00	0.00
181	1541414.34	734102.6715	0.00	0.00
182	1541414.473	734100.6061	0.00	0.00
183	1541414.731	734098.7153	0.23	0.00
184	1541415.095	734096.953	0.30	0.00
185	1541415.741	734095.2024	0.20	0.00
186	1541417.74	734095.1556	0.14	0.00
187	1541419.74	734095.1092	0.09	0.00
188	1541421.739	734095.0628	0.03	0.00
189	1541423.738	734095.0166	0.00	-0.03
190	1541425.737	734094.9696	0.00	-0.09
191	1541427.737	734094.9245	0.00	-0.15
192	1541429.736	734094.8784	0.00	-0.19
193	1541431.736	734094.8315	0.00	-0.24
194	1541433.734	734094.7863	0.00	-0.28
195	1541435.096	734096.486	0.00	-0.28
196	1541436.73	734098.1796	0.00	-0.29
197	1541438.247	734099.8486	0.00	-0.23
198	1541440.236	734099.8367	0.00	-0.38
199	1541442.233	734099.7872	0.00	-0.67
200	1541443.193	734101.5016	0.00	-0.59
201	1541443.695	734103.2301	0.00	-0.47
202	1541443.992	734105.0086	0.00	-0.30
203	1541444.657	734106.6837	0.00	-0.20
204	1541443.849	734108.3116	0.00	0.00
205	1541443.994	734110.1353	0.00	0.00
206	1541443.981	734112.1922	0.00	0.00
207	1541443.869	734114.1892	0.00	0.00
208	1541443.627	734116.1757	0.00	0.00
209	1541443.399	734118.1613	0.00	0.00
210	1541443.153	734120.1467	0.00	0.00
211	1541442.904	734122.1312	0.00	0.00
212	1541442.653	734124.1158	0.00	0.00
213	1541440.85	734124.5671	0.00	0.00
214	1541439.064	734124.8862	0.00	0.00
215	1541437.208	734125.7564	0.00	0.00
216	1541435.368	734126.5066	0.00	0.00
217	1541433.52	734127.3116	0.00	0.00
218	1541431.697	734127.9217	0.00	0.00
219	1541429.933	734128.0514	0.00	0.00
220	1541428.178	734128.1108	0.00	0.00
221	1541426.443	734128.0194	0.00	0.00
222	1541411.068	734110.2741	0.00	0.00
223	1541411.685	734108.4536	0.00	0.00
224	1541412.023	734106.659	0.00	0.00
225	1541412.297	734104.8403	0.00	0.00
226	1541412.346	734102.8502	0.00	0.00
227	1541412.479	734100.7032	0.00	0.00
228	1541412.733	734098.7694	0.09	0.00
229	1541413.095	734097.0008	0.34	0.00
230	1541413.742	734095.2491	0.24	0.00
231	1541414.756	734093.4919	0.13	0.00
232	1541416.756	734093.4457	0.08	0.00
233	1541418.756	734093.3994	0.03	0.00
234	1541420.757	734093.3531	0.00	-0.02
235	1541422.757	734093.3069	0.00	-0.07
236	1541424.757	734093.2606	0.00	-0.12
237	1541426.757	734093.2144	0.00	-0.17
238	1541428.758	734093.1681	0.00	-0.22
239	1541430.758	734093.1219	0.00	-0.26
240	1541432.758	734093.0756	0.00	-0.30

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4012	1541528.279	734146.5766	0.00	-1.26
4013	1541529.497	734147.8931	0.00	-0.94
4014	1541530.465	734149.6331	0.00	-0.59
4015	1541529.41	734151.3262	0.00	-0.48
4016	1541528.293	734152.978	0.00	-0.42
4017	1541527.124	734154.5971	0.00	-0.37
4018	1541525.952	734156.2153	0.00	-0.37
4019	1541524.809	734157.8537	0.00	-0.32
4020	1541523.689	734159.509	0.00	-0.24
4021	1541522.598	734161.1617	0.00	-0.17
4022	1541521.407	734162.8072	0.00	-0.16
4023	1541520.173	734164.3537	0.00	-0.15
4024	1541518.914	734165.9008	0.00	-0.17
4025	1541517.616	734167.4153	0.00	-0.20
4026	1541516.31	734168.923	0.00	0.00
4027	1541515.027	734170.462	0.00	0.00
4028	1541513.888	734172.0766	0.00	0.00
4029	1541512.903	734173.8232	0.00	0.00
4030	1541512.069	734175.6352	0.00	0.00
4031	1541511.367	734177.5034	0.00	0.00
4032	1541510.709	734179.3865	0.00	0.00
4033	1541509.945	734181.2189	0.00	0.00
4034	1541508.99	734182.9613	1.01	0.00
4035	1541507.922	734184.6489	2.07	0.00
4036	1541506.84	734186.3296	3.03	0.00
4037	1541505.773	734188.0188	4.03	0.00
4038	1541504.713	734189.7117	5.03	0.00
4039	1541502.666	734189.7147	5.08	0.00
4040	1541500.351	734190.1329	4.98	0.00
4041	1541499.275	734191.8187	6.21	0.00
4042	1541497.031	734192.1078	6.02	0.00
4043	1541494.822	734192.3393	5.80	0.00
4044	1541492.54	734192.6818	5.73	0.00
4045	1541490.32	734192.928	5.72	0.00
4046	1541489.234	734194.6081	6.92	0.00
4047	1541487.038	734194.8134	6.83	0.00
4048	1541485.951	734196.4912	7.54	0.00
4049	1541484.863	734198.1682	7.57	0.00
4050	1541482.913	734197.9902	7.06	0.00
4051	1541480.959	734197.8196	6.79	0.00
4052	1541479.053	734197.5743	6.31	0.00
4053	1541477.963	734199.247	6.17	0.00
4054	1541475.899	734199.2435	4.84	0.00
4055	1541473.733	734199.3982	3.47	0.00
4056	1541472.641	734201.0748	3.05	0.00
4057	1541471.554	734202.754	2.21	0.00
4058	1541469.514	734202.728	0.82	0.00
4059	1541467.453	734202.7454	0.54	0.00
4060	1541465.273	734202.9696	0.18	0.00
4061	1541463.119	734203.1719	0.00	-0.13
4062	1541461.035	734203.2405	0.00	-0.38
4063	1541460.144	734204.7985	0.00	-0.18
4064	1541458.574	734205.7269	0.00	-0.38
4065	1541456.586	734205.7415	0.42	0.00
4066	1541454.944	734207.0501	0.87	0.00
4067	1541453.08	734207.3002	1.63	0.00
4068	1541451.177	734208.0953	2.11	0.00
4069	1541449.356	734208.9376	2.37	0.00
4070	1541447.505	734209.7541	2.46	0.00
4071	1541445.672	734210.4492	2.41	0.00
4072	1541443.857	734211.0079	2.36	0.00
4073	1541442.029	734211.7142	2.32	0.00
4074	1541441.76	734213.6882	2.23	0.00
4075	1541439.943	734214.2345	2.44	0.00
4076	1541438.182	734214.3641	2.37	0.00
4077	1541436.452	734214.2639	2.16	0.00
4078	1541434.719	734214.1894	1.99	0.00
4079	1541432.94	734214.4727	1.79	0.00
4080	1541431.077	734215.3657	1.64	0.00
4081	1541429.271	734215.8392	1.42	0.00
4082	1541427.496	734216.1045	1.19	0.00
4083	1541425.643	734216.9277	0.86	0.00
4084	1541423.798	734217.719	0.89	0.00
4085	1541421.956	734218.5446	0.91	0.00
4086	1541420.075	734219.2027	0.93	0.00
4087	1541418.362	734219.3068	0.86	0.00
4088	1541416.758	734219.6862	0.80	0.00
4089	1541414.903	734219.3266	0.69	0.00
4090	1541344.258	734148.5121	0.00	-0.01
4091	1541342.76	734147.3205	0.01	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
241	1541434.758	734093.0293	0.00	-0.34
242	1541435.733	734094.7393	0.00	-0.32
243	1541437.096	734096.4404	0.00	-0.32
244	1541438.734	734098.131	0.00	-0.36
245	1541440.734	734098.0899	0.00	-0.54
246	1541442.734	734098.0429	0.00	-0.84
247	1541444.232	734099.7422	0.00	-0.95
248	1541445.19	734101.4534	0.00	-0.88
249	1541445.69	734103.1789	0.00	-0.75
250	1541446.016	734104.8976	0.00	-0.59
251	1541446.629	734106.6414	0.00	-0.48
252	1541445.682	734108.6325	0.00	-0.29
253	1541445.594	734110.9884	0.00	-0.02
254	1541445.759	734113.1381	0.00	0.00
255	1541445.453	734115.2798	0.00	0.00
256	1541445.242	734117.28	0.00	0.00
257	1541445.006	734119.2709	0.00	0.00
258	1541444.76	734121.2552	0.00	0.00
259	1541444.51	734123.2395	0.00	0.00
260	1541444.259	734125.2237	0.00	0.00
261	1541442.402	734126.1005	0.00	0.00
262	1541440.599	734126.5522	0.00	0.00
263	1541438.813	734126.8702	0.00	0.00
264	1541436.958	734127.7394	0.00	0.00
265	1541435.117	734128.4905	0.00	0.00
266	1541433.27	734129.2958	0.00	0.00
267	1541431.446	734129.907	0.00	0.00
268	1541429.682	734130.0371	0.00	0.00
269	1541427.927	734130.0968	0.00	0.00
270	1541426.192	734130.0044	0.00	0.00
271	1541409.081	734110.5079	0.00	0.00
272	1541409.698	734108.6888	0.00	0.00
273	1541410.037	734106.8933	0.00	0.00
274	1541410.306	734105.0642	0.00	0.00
275	1541410.354	734103.0282	0.00	0.00
276	1541410.482	734100.8008	0.00	0.00
277	1541410.736	734098.8238	0.00	0.00
278	1541411.096	734097.0485	0.25	0.00
279	1541411.743	734095.2957	0.25	0.00
280	1541412.756	734093.5382	0.16	0.00
281	1541436.758	734092.9831	0.00	-0.36
282	1541437.733	734094.6933	0.00	-0.34
283	1541439.097	734096.3937	0.00	-0.38
284	1541441.097	734096.3482	0.00	-0.58
285	1541443.097	734096.3018	0.00	-0.87
286	1541444.735	734097.9969	0.00	-1.14
287	1541446.232	734099.6956	0.00	-1.23
288	1541447.189	734101.4072	0.00	-1.16
289	1541447.695	734103.1265	0.00	-1.03
290	1541448.011	734104.8553	0.00	-0.88
291	1541448.655	734106.5634	0.00	-0.77
292	1541447.766	734108.2743	0.00	-0.62
293	1541447.023	734109.9004	0.00	-0.30
294	1541447.327	734111.5662	0.00	-0.25
295	1541447.84	734113.1908	0.00	-0.29
296	1541447.158	734114.9554	0.00	0.00
297	1541447.012	734116.9593	0.00	0.00
298	1541446.787	734118.9488	0.00	0.00
299	1541446.545	734120.9348	0.00	0.00
300	1541446.296	734122.9199	0.00	0.00
301	1541446.046	734124.9049	0.00	0.00
302	1541445.795	734126.8899	0.00	0.00
303	1541444.008	734127.208	0.00	0.00
304	1541442.151	734128.0851	0.00	0.00
305	1541440.348	734128.5373	0.00	0.00
306	1541438.562	734128.8542	0.00	0.00
307	1541436.707	734129.7224	0.00	0.00
308	1541434.867	734130.4744	0.00	0.00
309	1541433.019	734131.28	0.00	0.00
310	1541431.195	734131.8922	0.00	0.00
311	1541429.431	734132.0228	0.00	0.00
312	1541427.676	734132.0829	0.00	0.00
313	1541425.941	734131.9893	0.00	0.00
314	1541407.094	734110.7417	0.00	0.00
315	1541407.71	734108.9241	0.00	0.00
316	1541408.056	734107.1344	0.00	0.00
317	1541408.33	734105.2962	0.00	0.00
318	1541408.342	734103.1906	0.00	0.00
319	1541408.458	734100.8912	0.00	0.00
320	1541408.739	734098.8774	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4092	1541341.202	734146.3481	0.00	-0.06
4093	1541339.559	734145.4212	0.00	-0.22
4094	1541337.715	734144.3478	0.00	-0.40
4095	1541335.844	734142.9117	0.00	-0.58
4096	1541334.064	734141.6337	0.00	-0.75
4097	1541334.038	734139.6366	0.00	-0.74
4098	1541332.288	734138.449	0.00	-0.90
4099	1541530.769	734090.809	0.00	-0.01
4100	1541531.689	734092.5201	0.00	0.00
4101	1541533.091	734094.2194	0.00	0.00
4102	1541534.74	734095.9122	0.00	0.00
4103	1541536.182	734097.6091	0.00	0.00
4104	1541537.118	734099.3162	0.00	0.00
4105	1541537.575	734101.0333	0.00	-0.24
4106	1541537.934	734102.7521	0.00	-0.49
4107	1541538.617	734104.4651	0.00	-0.73
4108	1541537.75	734106.25	0.00	-1.04
4109	1541536.695	734107.9484	0.00	-1.35
4110	1541537.261	734109.6214	0.00	-1.58
4111	1541538.71	734110.7283	0.00	-1.69
4112	1541537.362	734112.5125	0.00	-2.02
4113	1541535.721	734113.6557	0.00	-2.27
4114	1541535.545	734115.6211	0.00	-2.49
4115	1541535.403	734117.5688	0.00	-2.60
4116	1541535.229	734119.3667	0.00	-2.60
4117	1541534.263	734121.1593	0.00	-2.60
4118	1541533.068	734122.9507	0.00	-2.60
4119	1541532.029	734124.6712	0.00	-2.60
4120	1541532.361	734127.1815	0.00	-2.60
4121	1541533.462	734128.9107	0.00	-2.60
4122	1541532.515	734130.6515	0.00	-2.60
4123	1541531.489	734132.4069	0.00	-2.60
4124	1541532.668	734133.7692	0.00	-2.60
4125	1541531.609	734135.4602	0.00	-2.60
4126	1541532.741	734136.9165	0.00	-2.60
4127	1541531.619	734138.5685	0.00	-2.54
4128	1541532.767	734139.9568	0.00	-2.11
4129	1541533.963	734141.2647	0.00	-1.71
4130	1541532.796	734142.8865	0.00	-1.51
4131	1541531.652	734144.5258	0.00	-1.32
4132	1541530.554	734146.1965	0.00	-1.14
4133	1541531.502	734147.9255	0.00	-0.77
4134	1541532.33	734149.8891	0.00	-0.36
4135	1541531.301	734151.601	0.00	-0.24
4136	1541530.214	734153.2729	0.00	-0.15
4137	1541529.053	734154.897	0.00	-0.11
4138	1541527.868	734156.506	0.00	-0.10
4139	1541526.707	734158.134	0.00	-0.08
4140	1541525.584	734159.7881	0.00	-0.02
4141	1541524.478	734161.4492	0.25	0.00
4142	1541523.33	734163.0847	0.48	0.00
4143	1541522.131	734164.6854	0.55	0.00
4144	1541520.886	734166.2438	0.48	0.00
4145	1541519.604	734167.773	0.29	0.00
4146	1541518.289	734169.272	0.00	0.00
4147	1541516.981	734170.7811	0.00	0.00
4148	1541515.765	734172.36	0.00	0.00
4149	1541514.696	734174.0342	0.00	0.00
4150	1541513.815	734175.8286	0.00	0.00
4151	1541513.099	734177.6978	0.00	0.00
4152	1541512.488	734179.6027	0.00	0.00
4153	1541511.797	734181.4634	0.21	0.00
4154	1541510.892	734183.2209	1.12	0.00
4155	1541509.819	734184.9069	2.09	0.00
4156	1541508.727	734186.583	3.10	0.00
4157	1541507.655	734188.2708	4.13	0.00
4158	1541506.597	734189.966	5.04	0.00
4159	1541505.536	734191.6597	6.02	0.00
4160	1541503.649	734191.4019	6.02	0.00
4161	1541501.596	734191.4029	6.09	0.00
4162	1541500.52	734193.0868	7.20	0.00
4163	1541498.194	734193.5014	7.47	0.00
4164	1541495.948	734193.7888	7.31	0.00
4165	1541493.738	734194.0193	7.11	0.00
4166	1541491.455	734194.3619	7.01	0.00
4167	1541490.37	734196.0413	7.79	0.00
4168	1541488.147	734196.2877	7.79	0.00
4169	1541487.059	734197.9666	7.79	0.00
4170	1541485.97	734199.6446	7.79	0.00
4171	1541483.773	734199.8442	7.46	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
321	1541409.096	734097.0959	0.06	0.00
322	1541409.744	734095.3422	0.24	0.00
323	1541410.755	734093.5844	0.19	0.00
324	1541438.759	734092.9368	0.00	-0.38
325	1541439.732	734094.647	0.00	-0.40
326	1541441.731	734094.6009	0.00	-0.65
327	1541443.73	734094.5546	0.00	-0.95
328	1541445.097	734096.2556	0.00	-1.17
329	1541446.735	734097.9505	0.00	-1.44
330	1541448.232	734099.6494	0.00	-1.51
331	1541449.189	734101.3598	0.00	-1.45
332	1541449.693	734103.0811	0.00	-1.32
333	1541450.015	734104.8044	0.00	-1.16
334	1541450.655	734106.5224	0.00	-1.05
335	1541449.776	734108.274	0.00	-1.00
336	1541448.794	734110.0059	0.00	-0.80
337	1541449.351	734111.698	0.00	-0.84
338	1541450.031	734113.4264	0.00	-0.99
339	1541448.875	734114.7758	0.00	-0.39
340	1541448.802	734116.579	0.00	0.00
341	1541448.574	734118.5487	0.00	0.00
342	1541448.338	734120.5327	0.00	0.00
343	1541448.092	734122.519	0.00	0.00
344	1541447.842	734124.5049	0.00	0.00
345	1541447.591	734126.4904	0.00	0.00
346	1541447.34	734128.4761	0.00	0.00
347	1541445.544	734128.8749	0.00	0.00
348	1541443.758	734129.1922	0.00	0.00
349	1541441.9	734130.0697	0.00	0.00
350	1541440.097	734130.5225	0.00	0.00
351	1541438.312	734130.8381	0.00	0.00
352	1541436.457	734131.7054	0.00	0.00
353	1541434.616	734132.4583	0.00	0.00
354	1541432.768	734133.2642	0.00	0.00
355	1541430.944	734133.8775	0.00	0.00
356	1541429.18	734134.0085	0.00	0.00
357	1541427.425	734134.0689	0.00	0.00
358	1541425.69	734133.9743	0.00	0.00
359	1541405.107	734110.9755	0.00	0.00
360	1541405.722	734109.158	0.00	0.00
361	1541406.071	734107.3709	0.00	0.00
362	1541406.399	734105.5769	0.00	0.00
363	1541406.362	734103.5388	0.00	0.00
364	1541406.282	734101.1497	0.00	0.00
365	1541406.75	734098.9609	0.00	-0.02
366	1541407.096	734097.147	0.00	-0.12
367	1541407.745	734095.3893	0.01	0.00
368	1541408.755	734093.6307	0.10	0.00
369	1541440.759	734092.8906	0.00	-0.48
370	1541442.759	734092.8443	0.00	-0.78
371	1541444.759	734092.7981	0.00	-1.08
372	1541445.729	734094.5084	0.00	-1.24
373	1541447.097	734096.2093	0.00	-1.47
374	1541448.736	734097.9043	0.00	-1.74
375	1541450.231	734099.6029	0.00	-1.80
376	1541451.188	734101.3137	0.00	-1.73
377	1541451.692	734103.034	0.00	-1.61
378	1541452.014	734104.7589	0.00	-1.45
379	1541452.656	734106.4759	0.00	-1.34
380	1541451.776	734108.229	0.00	-1.37
381	1541450.757	734109.9894	0.00	-1.33
382	1541451.407	734111.7209	0.00	-1.61
383	1541452.023	734113.4764	0.00	-1.70
384	1541450.75	734115.4358	0.00	-0.91
385	1541450.418	734117.5877	0.00	-0.33
386	1541450.191	734119.6013	0.00	0.00
387	1541449.952	734121.5916	0.00	0.00
388	1541449.705	734123.5765	0.00	0.00
389	1541449.456	734125.5607	0.00	0.00
390	1541449.205	734127.5449	0.00	0.00
391	1541448.954	734129.5291	0.00	0.00
392	1541447.089	734130.4617	0.00	0.00
393	1541445.293	734130.8599	0.00	0.00
394	1541443.507	734131.1764	0.00	0.00
395	1541441.649	734132.0543	0.00	0.00
396	1541439.846	734132.5076	0.00	0.00
397	1541438.061	734132.8221	0.00	0.00
398	1541436.206	734133.6884	0.00	0.00
399	1541434.365	734134.4422	0.00	0.00
400	1541432.517	734135.2484	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4172	1541481.823	734199.6654	7.19	0.00
4173	1541479.868	734199.4939	6.92	0.00
4174	1541478.776	734201.1672	7.05	0.00
4175	1541476.872	734200.919	5.95	0.00
4176	1541474.808	734200.9173	4.55	0.00
4177	1541473.718	734202.5921	4.05	0.00
4178	1541472.633	734204.2703	3.24	0.00
4179	1541470.474	734204.4382	1.23	0.00
4180	1541468.443	734204.4142	0.75	0.00
4181	1541466.392	734204.4345	0.54	0.00
4182	1541464.218	734204.6706	0.28	0.00
4183	1541462.078	734204.8648	0.10	0.00
4184	1541460.852	734206.508	0.29	0.00
4185	1541459.355	734207.8797	0.37	0.00
4186	1541457.046	734207.3533	0.00	-0.12
4187	1541455.831	734209.1256	0.03	0.00
4188	1541454.195	734209.2042	0.74	0.00
4189	1541452.574	734209.1087	1.43	0.00
4190	1541450.931	734210.1176	1.51	0.00
4191	1541449.093	734210.9161	1.86	0.00
4192	1541447.246	734211.7389	2.03	0.00
4193	1541445.413	734212.4296	2.09	0.00
4194	1541443.597	734212.9864	2.16	0.00
4195	1541443.33	734214.9639	1.31	0.00
4196	1541441.489	734215.6664	1.61	0.00
4197	1541439.668	734216.212	1.98	0.00
4198	1541437.905	734216.3419	2.31	0.00
4199	1541436.177	734216.2429	2.30	0.00
4200	1541434.446	734216.1676	2.12	0.00
4201	1541432.667	734216.4496	1.95	0.00
4202	1541430.796	734217.3426	1.76	0.00
4203	1541428.985	734217.8145	1.61	0.00
4204	1541427.209	734218.0773	1.30	0.00
4205	1541425.344	734218.8973	0.95	0.00
4206	1541423.48	734219.687	0.92	0.00
4207	1541421.579	734220.4865	0.95	0.00
4208	1541419.702	734221.14	0.97	0.00
4209	1541417.97	734221.2891	0.97	0.00
4210	1541416.224	734221.3639	0.88	0.00
4211	1541414.652	734221.3116	0.80	0.00
4212	1541343.806	734150.461	0.02	0.00
4213	1541342.315	734149.2678	0.00	0.00
4214	1541340.777	734148.2982	0.00	0.00
4215	1541339.246	734147.3753	0.00	-0.09
4216	1541337.608	734146.3304	0.00	-0.26
4217	1541335.848	734144.9062	0.00	-0.46
4218	1541334.088	734143.6313	0.00	-0.65
4219	1541332.336	734142.4502	0.00	-0.83
4220	1541332.312	734140.4496	0.00	-0.91
4221	1541532.769	734090.7628	0.00	0.00
4222	1541533.688	734092.4738	0.00	0.00
4223	1541535.089	734094.173	0.00	0.00
4224	1541536.738	734095.8654	0.00	0.00
4225	1541538.177	734097.5617	0.00	0.00
4226	1541539.112	734099.2681	0.00	0.00
4227	1541539.568	734100.9851	0.00	-0.15
4228	1541539.934	734102.7041	0.00	-0.39
4229	1541540.595	734104.4345	0.00	-0.63
4230	1541539.723	734106.1989	0.00	-0.95
4231	1541538.856	734108.2292	0.00	-1.30
4232	1541540.609	734109.9021	0.00	-1.48
4233	1541540.697	734111.9695	0.00	-1.79
4234	1541539.031	734112.8634	0.00	-2.00
4235	1541537.31	734114.3673	0.00	-2.24
4236	1541537.27	734116.3589	0.00	-2.38
4237	1541537.246	734118.5106	0.00	-2.56
4238	1541536.495	734120.5621	0.00	-2.60
4239	1541535.793	734122.2669	0.00	-2.60
4240	1541534.64	734123.6662	0.00	-2.60
4241	1541533.595	734125.3833	0.00	-2.60
4242	1541534.471	734127.2043	0.00	-2.60
4243	1541535.676	734128.5862	0.00	-2.60
4244	1541534.678	734130.3097	0.00	-2.60
4245	1541533.681	734132.0447	0.00	-2.60
4246	1541534.834	734133.5146	0.00	-2.60
4247	1541533.813	734135.232	0.00	-2.60
4248	1541534.992	734136.6397	0.00	-2.54
4249	1541533.906	734138.315	0.00	-2.31
4250	1541535.116	734139.6341	0.00	-1.80
4251	1541536.038	734141.3503	0.00	-1.24

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
401	1541430.693	734135.8627	0.00	0.00
402	1541428.929	734135.9942	0.00	0.00
403	1541427.174	734136.055	0.00	0.00
404	1541425.44	734135.9592	0.00	0.00
405	1541403.12	734111.2093	0.00	0.00
406	1541403.734	734109.3937	0.00	0.00
407	1541404.079	734107.6128	0.00	0.00
408	1541404.387	734105.8629	0.00	0.00
409	1541404.628	734104.2464	0.00	0.00
410	1541403.982	734102.375	0.00	0.00
411	1541404.209	734100.4815	0.00	0.00
412	1541404.781	734098.9408	0.00	-0.11
413	1541405.101	734097.1858	0.00	-0.25
414	1541405.746	734095.4345	0.00	-0.18
415	1541406.755	734093.6769	0.01	0.00
416	1541446.76	734092.7518	0.00	-1.37
417	1541447.729	734094.4622	0.00	-1.54
418	1541449.097	734096.1631	0.00	-1.76
419	1541450.736	734097.858	0.00	-2.02
420	1541452.231	734099.5567	0.00	-1.91
421	1541453.188	734101.2673	0.00	-1.78
422	1541453.691	734102.9879	0.00	-1.65
423	1541454.014	734104.7125	0.00	-1.54
424	1541454.656	734106.4297	0.00	-1.48
425	1541453.776	734108.1834	0.00	-1.82
426	1541452.746	734109.9418	0.00	-1.86
427	1541453.401	734111.6629	0.00	-2.16
428	1541454.04	734113.3775	0.00	-2.26
429	1541452.805	734115.1845	0.00	-1.67
430	1541452.205	734117.0701	0.00	-1.02
431	1541451.992	734119.0471	0.00	-0.50
432	1541451.764	734121.0327	0.00	0.00
433	1541451.518	734123.0209	0.00	0.00
434	1541451.271	734125.0043	0.00	0.00
435	1541451.021	734126.9885	0.00	0.00
436	1541450.77	734128.9722	0.00	0.00
437	1541450.52	734130.956	0.00	0.00
438	1541448.703	734131.5132	0.00	0.00
439	1541446.838	734132.4473	0.00	0.00
440	1541445.042	734132.8449	0.00	0.00
441	1541443.256	734133.1606	0.00	0.00
442	1541441.399	734134.0389	0.00	0.00
443	1541439.595	734134.4926	0.00	0.00
444	1541437.81	734134.806	0.00	0.00
445	1541435.955	734135.6714	0.00	0.00
446	1541434.114	734136.4261	0.00	0.00
447	1541432.266	734137.2326	0.00	0.00
448	1541430.442	734137.848	0.00	0.00
449	1541428.678	734137.9799	0.00	0.00
450	1541426.923	734138.041	0.00	0.00
451	1541425.189	734137.9441	0.00	0.00
452	1541401.133	734111.4431	0.00	0.00
453	1541401.746	734109.6267	0.00	0.00
454	1541402.093	734107.8422	0.00	0.00
455	1541402.401	734106.0654	0.00	0.00
456	1541402.774	734104.2858	0.00	0.00
457	1541401.713	734103.1484	0.00	0.00
458	1541401.531	734102.0826	0.00	0.00
459	1541402.373	734100.7107	0.00	0.00
460	1541402.7	734098.9434	0.00	-0.10
461	1541403.099	734097.2325	0.00	-0.35
462	1541403.747	734095.481	0.00	-0.30
463	1541404.755	734093.7232	0.00	-0.21
464	1541448.76	734092.7055	0.00	-1.67
465	1541449.728	734094.4159	0.00	-1.80
466	1541451.097	734096.1168	0.00	-1.90
467	1541452.737	734097.8117	0.00	-1.97
468	1541454.23	734099.5105	0.00	-1.87
469	1541455.187	734101.2211	0.00	-1.73
470	1541455.689	734102.9417	0.00	-1.60
471	1541456.013	734104.6662	0.00	-1.48
472	1541456.656	734106.3834	0.00	-1.78
473	1541455.776	734108.137	0.00	-2.29
474	1541454.744	734109.8947	0.00	-2.40
475	1541455.406	734111.6115	0.00	-2.69
476	1541456.045	734113.3298	0.00	-2.82
477	1541454.797	734115.0935	0.00	-2.17
478	1541454.097	734116.8731	0.00	-1.57
479	1541453.845	734118.6796	0.00	-1.03
480	1541453.6	734120.5478	0.00	-0.50

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4252	1541534.866	734142.967	0.00	-1.23
4253	1541533.699	734144.5881	0.00	-1.08
4254	1541532.572	734146.2383	0.00	-0.92
4255	1541533.367	734148.1796	0.00	-0.49
4256	1541534.255	734150.0231	0.00	-0.08
4257	1541533.245	734151.7477	0.00	0.00
4258	1541532.201	734153.4477	0.00	-0.01
4259	1541531.068	734155.0894	0.00	-0.02
4260	1541529.877	734156.6935	0.00	-0.01
4261	1541528.692	734158.3046	0.11	0.00
4262	1541527.552	734159.9482	0.44	0.00
4263	1541526.45	734161.6149	0.96	0.00
4264	1541525.333	734163.2712	1.27	0.00
4265	1541524.162	734164.887	1.50	0.00
4266	1541522.938	734166.4669	1.75	0.00
4267	1541521.679	734168.0166	1.89	0.00
4268	1541520.378	734169.5279	1.63	0.00
4269	1541519.046	734171.0122	1.27	0.00
4270	1541517.756	734172.5327	0.83	0.00
4271	1541516.602	734174.1564	0.43	0.00
4272	1541515.625	734175.8731	0.14	0.00
4273	1541514.857	734177.7428	0.00	-0.11
4274	1541514.284	734179.6514	0.00	-0.55
4275	1541513.689	734181.5567	0.00	0.00
4276	1541512.875	734183.345	1.02	0.00
4277	1541511.811	734185.0355	2.00	0.00
4278	1541510.706	734186.7024	2.99	0.00
4279	1541509.624	734188.384	3.99	0.00
4280	1541508.565	734190.0793	4.94	0.00
4281	1541507.51	734191.7764	5.93	0.00
4282	1541506.445	734193.4677	6.17	0.00
4283	1541504.466	734193.3476	6.66	0.00
4284	1541502.577	734193.0871	7.08	0.00
4285	1541501.497	734194.7684	7.11	0.00
4286	1541499.438	734194.7678	7.53	0.00
4287	1541497.111	734195.1824	7.92	0.00
4288	1541494.864	734195.4688	7.91	0.00
4289	1541492.653	734195.6986	7.80	0.00
4290	1541491.568	734197.3773	7.83	0.00
4291	1541489.283	734197.7202	7.79	0.00
4292	1541488.195	734199.3984	7.79	0.00
4293	1541487.106	734201.0756	7.79	0.00
4294	1541484.879	734201.3215	7.76	0.00
4295	1541482.682	734201.5191	7.51	0.00
4296	1541480.731	734201.3394	7.29	0.00
4297	1541479.638	734203.0127	7.17	0.00
4298	1541477.684	734202.8401	6.83	0.00
4299	1541475.781	734202.5911	5.50	0.00
4300	1541474.693	734204.265	4.93	0.00
4301	1541473.611	734205.9433	4.33	0.00
4302	1541471.557	734205.9544	2.41	0.00
4303	1541469.407	734206.1305	0.95	0.00
4304	1541467.385	734206.1094	0.77	0.00
4305	1541465.34	734206.1313	0.64	0.00
4306	1541463.124	734206.3794	0.56	0.00
4307	1541461.94	734208.1866	0.81	0.00
4308	1541460.466	734209.5041	0.94	0.00
4309	1541458.736	734210.0758	0.55	0.00
4310	1541457.536	734208.9348	0.00	-0.23
4311	1541456.859	734210.8496	0.00	-0.15
4312	1541454.916	734211.0743	0.02	0.00
4313	1541452.708	734211.0071	0.95	0.00
4314	1541450.696	734212.0411	0.82	0.00
4315	1541448.838	734212.8898	0.76	0.00
4316	1541446.981	734213.7235	0.91	0.00
4317	1541445.148	734214.4104	1.07	0.00
4318	1541444.874	734216.3896	0.00	-0.17
4319	1541443.052	734216.9405	0.11	0.00
4320	1541441.2	734217.6412	0.55	0.00
4321	1541439.372	734218.187	1.12	0.00
4322	1541437.607	734218.3157	1.90	0.00
4323	1541435.879	734218.2184	2.44	0.00
4324	1541434.15	734218.1424	2.27	0.00
4325	1541432.368	734218.4219	2.09	0.00
4326	1541430.48	734219.3178	2.01	0.00
4327	1541428.656	734219.783	1.76	0.00
4328	1541426.876	734220.0429	1.44	0.00
4329	1541424.975	734220.8571	1.08	0.00
4330	1541423.055	734221.6238	0.96	0.00
4331	1541421.092	734222.4068	0.98	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
481	1541453.316	734122.4976	0.00	-0.18
482	1541453.082	734124.4784	0.00	0.00
483	1541452.832	734126.4614	0.00	0.00
484	1541452.582	734128.4448	0.00	0.00
485	1541452.332	734130.4279	0.00	0.00
486	1541452.081	734132.4112	0.00	0.00
487	1541450.269	734132.9397	0.00	0.00
488	1541448.452	734133.4973	0.00	0.00
489	1541446.587	734134.4329	0.00	0.00
490	1541444.791	734134.8298	0.00	0.00
491	1541443.005	734135.1447	0.00	0.00
492	1541441.148	734136.0234	0.00	0.00
493	1541439.344	734136.4777	0.00	0.00
494	1541437.559	734136.7899	0.00	0.00
495	1541435.705	734137.6543	0.00	0.00
496	1541433.864	734138.41	0.00	0.00
497	1541432.016	734139.2168	0.00	0.00
498	1541430.191	734139.8332	0.00	0.00
499	1541428.427	734139.9656	0.00	0.00
500	1541426.672	734140.027	0.00	0.00
501	1541424.938	734139.9291	0.00	0.00
502	1541399.146	734111.6769	0.00	0.00
503	1541399.758	734109.861	0.00	0.00
504	1541400.104	734108.0783	0.00	0.00
505	1541400.41	734106.3133	0.00	0.00
506	1541400.767	734104.6108	0.00	0.00
507	1541399.833	734103.2581	0.00	0.00
508	1541399.481	734102.1733	0.00	0.00
509	1541400.329	734100.6951	0.00	0.00
510	1541400.727	734099.012	0.02	0.00
511	1541401.09	734097.2683	0.00	-0.13
512	1541401.748	734095.5265	0.00	-0.30
513	1541402.755	734093.7695	0.00	-0.34
514	1541450.76	734092.6593	0.00	-1.66
515	1541451.727	734094.3697	0.00	-1.76
516	1541453.098	734096.0706	0.00	-1.86
517	1541454.738	734097.7654	0.00	-1.96
518	1541456.23	734099.4642	0.00	-1.82
519	1541457.186	734101.1748	0.00	-1.69
520	1541457.687	734102.8954	0.00	-1.56
521	1541458.012	734104.62	0.00	-1.44
522	1541458.657	734106.337	0.00	-2.15
523	1541457.776	734108.0906	0.00	-2.63
524	1541456.744	734109.8476	0.00	-2.93
525	1541457.407	734111.565	0.00	-3.22
526	1541458.048	734113.283	0.00	-3.35
527	1541456.798	734115.0451	0.00	-2.64
528	1541456.069	734116.7932	0.00	-2.00
529	1541455.824	734118.5226	0.00	-1.49
530	1541455.527	734120.198	0.00	-1.05
531	1541455.124	734121.9672	0.00	-0.67
532	1541454.902	734123.8481	0.00	-0.42
533	1541454.655	734125.8274	0.00	-0.15
534	1541454.406	734127.8054	0.00	0.00
535	1541454.158	734129.7868	0.00	0.00
536	1541453.907	734131.7688	0.00	0.00
537	1541453.657	734133.7504	0.00	0.00
538	1541451.83	734134.3944	0.00	0.00
539	1541450.018	734134.9234	0.00	0.00
540	1541448.201	734135.4815	0.00	0.00
541	1541446.336	734136.4184	0.00	0.00
542	1541444.54	734136.8147	0.00	0.00
543	1541442.754	734137.1289	0.00	0.00
544	1541440.897	734138.008	0.00	0.00
545	1541439.093	734138.4628	0.00	0.00
546	1541437.308	734138.7738	0.00	0.00
547	1541435.454	734139.6372	0.00	0.00
548	1541433.613	734140.3938	0.00	0.00
549	1541431.765	734141.201	0.00	0.00
550	1541429.94	734141.8184	0.00	0.00
551	1541428.176	734141.9512	0.00	0.00
552	1541426.421	734142.0131	0.00	0.00
553	1541424.687	734141.914	0.00	0.00
554	1541397.159	734111.9107	0.00	0.00
555	1541397.769	734110.0946	0.00	0.00
556	1541398.116	734108.3108	0.00	0.00
557	1541398.42	734106.5402	0.00	0.00
558	1541398.773	734104.8091	0.00	0.00
559	1541397.854	734103.4496	0.00	0.00
560	1541397.46	734102.269	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4332	1541419.121	734223.0518	1.00	0.00
4333	1541417.364	734223.1513	1.01	0.00
4334	1541415.628	734223.1581	0.97	0.00
4335	1541414.142	734223.0717	0.90	0.00
4336	1541343.353	734152.41	0.06	0.00
4337	1541341.833	734151.2385	0.00	0.00
4338	1541340.371	734150.2415	0.00	0.00
4339	1541338.936	734149.3036	0.00	0.00
4340	1541337.503	734148.3101	0.00	-0.11
4341	1541335.85	734146.8998	0.00	-0.31
4342	1541334.108	734145.6302	0.00	-0.50
4343	1541332.36	734144.4508	0.00	-0.68
4344	1541534.77	734090.7165	0.00	0.00
4345	1541535.686	734092.4275	0.00	0.00
4346	1541537.087	734094.1264	0.00	0.00
4347	1541538.735	734095.8183	0.00	0.00
4348	1541540.171	734097.5137	0.00	0.00
4349	1541541.105	734099.2186	0.00	0.00
4350	1541541.559	734100.9309	0.00	-0.05
4351	1541541.942	734102.6232	0.00	-0.29
4352	1541542.449	734104.2859	0.00	-0.53
4353	1541541.923	734106.1514	0.00	-0.84
4354	1541540.844	734107.916	0.00	-1.16
4355	1541542.44	734109.6984	0.00	-1.36
4356	1541542.449	734111.6437	0.00	-1.66
4357	1541542.481	734113.6398	0.00	-1.75
4358	1541540.76	734113.9973	0.00	-1.93
4359	1541539.036	734114.8799	0.00	-2.15
4360	1541539.002	734116.8619	0.00	-2.25
4361	1541539.134	734118.676	0.00	-2.36
4362	1541538.5	734120.367	0.00	-2.55
4363	1541537.726	734122.1327	0.00	-2.60
4364	1541536.644	734123.8474	0.00	-2.60
4365	1541535.541	734125.5024	0.00	-2.60
4366	1541536.71	734126.8785	0.00	-2.60
4367	1541537.841	734128.3297	0.00	-2.60
4368	1541536.822	734130.0478	0.00	-2.60
4369	1541535.827	734131.781	0.00	-2.60
4370	1541537.015	734133.1939	0.00	-2.60
4371	1541536.022	734134.928	0.00	-2.60
4372	1541537.256	734136.2654	0.00	-2.14
4373	1541536.218	734137.9701	0.00	-1.98
4374	1541537.172	734139.7084	0.00	-1.37
4375	1541537.964	734141.6429	0.00	-0.85
4376	1541536.795	734143.2625	0.00	-0.78
4377	1541535.613	734144.8731	0.00	-0.72
4378	1541534.46	734146.5057	0.00	-0.64
4379	1541535.31	734148.3244	0.00	-0.20
4380	1541536.079	734150.301	0.01	0.00
4381	1541535.086	734152.0425	0.00	0.00
4382	1541534.083	734153.7639	0.00	0.00
4383	1541532.985	734155.4228	0.00	-0.01
4384	1541531.792	734157.0271	0.00	-0.04
4385	1541530.585	734158.6152	0.11	0.00
4386	1541529.42	734160.2475	0.43	0.00
4387	1541528.311	734161.9263	0.86	0.00
4388	1541527.229	734163.5999	1.19	0.00
4389	1541526.086	734165.2305	1.44	0.00
4390	1541524.871	734166.8188	1.66	0.00
4391	1541523.626	734168.3851	1.76	0.00
4392	1541522.35	734169.9197	1.84	0.00
4393	1541521.021	734171.4034	1.84	0.00
4394	1541519.676	734172.867	1.70	0.00
4395	1541518.437	734174.4289	1.41	0.00
4396	1541517.41	734176.1215	0.92	0.00
4397	1541516.485	734177.6503	0.39	0.00
4398	1541516.119	734179.459	0.00	-0.06
4399	1541515.575	734181.3811	0.00	-0.02
4400	1541514.948	734183.4677	0.76	0.00
4401	1541513.738	734185.2681	1.87	0.00
4402	1541512.6	734186.9551	2.98	0.00
4403	1541511.497	734188.6375	3.90	0.00
4404	1541510.443	734190.3361	4.84	0.00
4405	1541509.393	734192.0432	5.58	0.00
4406	1541508.334	734193.7365	5.59	0.00
4407	1541507.263	734195.4212	5.60	0.00
4408	1541505.369	734195.1528	6.15	0.00
4409	1541503.388	734195.0306	6.62	0.00
4410	1541502.305	734196.7112	6.57	0.00
4411	1541500.415	734196.4477	7.02	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
561	1541398.33	734100.7498	0.00	0.00
562	1541398.714	734099.05	0.02	0.00
563	1541399.095	734097.319	0.02	0.00
564	1541399.747	734095.5707	0.00	-0.07
565	1541400.754	734093.8157	0.00	-0.23
566	1541452.76	734092.613	0.00	-1.65
567	1541453.726	734094.3235	0.00	-1.76
568	1541455.098	734096.0243	0.00	-1.84
569	1541456.738	734097.7192	0.00	-1.93
570	1541458.229	734099.418	0.00	-1.80
571	1541459.185	734101.1285	0.00	-1.68
572	1541459.685	734102.8492	0.00	-1.55
573	1541460.011	734104.5737	0.00	-1.43
574	1541460.657	734106.2907	0.00	-2.18
575	1541459.775	734108.0443	0.00	-3.12
576	1541458.743	734109.8012	0.00	-3.42
577	1541459.407	734111.5185	0.00	-3.77
578	1541460.049	734113.2366	0.00	-3.84
579	1541458.798	734114.9988	0.00	-3.11
580	1541458.067	734116.7479	0.00	-2.53
581	1541457.826	734118.4781	0.00	-1.99
582	1541457.577	734120.1761	0.00	-1.54
583	1541456.834	734121.6102	0.00	-1.12
584	1541456.735	734123.251	0.00	-0.90
585	1541456.466	734125.1953	0.00	-0.64
586	1541456.225	734127.1751	0.00	-0.46
587	1541455.982	734129.1528	0.00	-0.28
588	1541455.731	734131.1377	0.00	-0.10
589	1541455.481	734133.1205	0.00	0.00
590	1541455.23	734135.104	0.00	0.00
591	1541453.406	734135.7321	0.00	0.00
592	1541451.579	734136.3776	0.00	0.00
593	1541449.767	734136.9071	0.00	0.00
594	1541447.95	734137.4655	0.00	0.00
595	1541446.085	734138.4039	0.00	0.00
596	1541444.289	734138.7996	0.00	0.00
597	1541442.503	734139.113	0.00	0.00
598	1541440.646	734139.9925	0.00	0.00
599	1541438.842	734140.4478	0.00	0.00
600	1541437.058	734140.7577	0.00	0.00
601	1541435.203	734141.6202	0.00	0.00
602	1541433.362	734142.3777	0.00	0.00
603	1541431.514	734143.1851	0.00	0.00
604	1541429.689	734143.8036	0.00	0.00
605	1541427.925	734143.9369	0.00	0.00
606	1541426.17	734143.9994	0.00	0.00
607	1541424.436	734143.8989	0.00	0.00
608	1541395.172	734112.1445	0.00	0.00
609	1541395.781	734110.3284	0.00	0.00
610	1541396.128	734108.5443	0.00	0.00
611	1541396.432	734106.7728	0.00	0.00
612	1541396.783	734105.0365	0.00	0.00
613	1541395.87	734103.6316	0.00	0.00
614	1541395.456	734102.3644	0.00	0.00
615	1541396.331	734100.804	0.00	0.00
616	1541396.716	734099.0979	0.00	-0.02
617	1541397.092	734097.3633	0.00	-0.01
618	1541397.749	734095.6177	0.01	0.00
619	1541398.754	734093.862	0.00	-0.06
620	1541454.761	734092.5668	0.00	-1.63
621	1541455.725	734094.2772	0.00	-1.73
622	1541457.098	734095.9781	0.00	-1.83
623	1541458.739	734097.6729	0.00	-1.92
624	1541460.229	734099.3717	0.00	-1.79
625	1541461.185	734101.0823	0.00	-1.66
626	1541461.684	734102.8029	0.00	-1.54
627	1541462.011	734104.5274	0.00	-1.42
628	1541462.658	734106.2444	0.00	-2.40
629	1541461.775	734107.9979	0.00	-3.49
630	1541460.743	734109.7548	0.00	-3.95
631	1541461.407	734111.4721	0.00	-4.07
632	1541462.05	734113.1902	0.00	-4.09
633	1541460.798	734114.9526	0.00	-3.73
634	1541460.066	734116.7027	0.00	-3.06
635	1541459.824	734118.4425	0.00	-2.56
636	1541459.525	734120.1957	0.00	-2.07
637	1541458.591	734122.0937	0.00	-1.47
638	1541458.198	734124.325	0.00	-1.14
639	1541458.032	734126.3864	0.00	-0.95
640	1541457.828	734128.3622	0.00	-0.79

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4412	1541498.354	734196.4476	7.44	0.00
4413	1541496.026	734196.8627	7.83	0.00
4414	1541493.779	734197.1483	8.00	0.00
4415	1541492.693	734198.8273	8.02	0.00
4416	1541490.481	734199.0555	7.86	0.00
4417	1541489.394	734200.7329	7.89	0.00
4418	1541488.304	734202.4093	7.92	0.00
4419	1541486.015	734202.7517	7.79	0.00
4420	1541483.786	734202.9972	7.64	0.00
4421	1541481.589	734203.193	7.39	0.00
4422	1541480.495	734204.8662	7.28	0.00
4423	1541478.545	734204.6859	7.06	0.00
4424	1541476.593	734204.5139	6.34	0.00
4425	1541475.506	734206.1905	5.82	0.00
4426	1541474.429	734207.8733	5.23	0.00
4427	1541472.541	734207.629	3.58	0.00
4428	1541470.496	734207.6478	1.17	0.00
4429	1541468.355	734207.8332	1.02	0.00
4430	1541466.341	734207.8142	0.91	0.00
4431	1541464.28	734207.8078	0.88	0.00
4432	1541463.41	734209.4437	1.08	0.00
4433	1541461.884	734210.7132	1.20	0.00
4434	1541459.882	734211.53	1.30	0.00
4435	1541457.989	734212.2076	0.64	0.00
4436	1541455.89	734212.8559	0.00	-0.07
4437	1541453.819	734212.3515	0.23	0.00
4438	1541452.259	734212.958	0.10	0.00
4439	1541450.526	734213.911	0.00	-0.34
4440	1541448.628	734214.7876	0.00	-0.37
4441	1541446.718	734215.7036	0.00	-0.29
4442	1541446.434	734217.6926	0.00	-1.60
4443	1541444.593	734218.3791	0.00	-1.43
4444	1541442.744	734218.9093	0.00	-0.98
4445	1541440.888	734219.6153	0.00	-0.40
4446	1541439.042	734220.1545	0.29	0.00
4447	1541437.271	734220.2839	1.31	0.00
4448	1541435.544	734220.1874	2.23	0.00
4449	1541433.814	734220.1101	2.44	0.00
4450	1541432.026	734220.3843	2.38	0.00
4451	1541430.09	734221.303	2.20	0.00
4452	1541428.271	734221.7533	1.94	0.00
4453	1541426.456	734221.9837	1.64	0.00
4454	1541424.469	734222.8093	1.43	0.00
4455	1541422.492	734223.5272	1.36	0.00
4456	1541420.355	734224.2534	1.51	0.00
4457	1541418.23	734225.0498	1.67	0.00
4458	1541416.339	734224.7694	1.37	0.00
4459	1541414.263	734224.5014	1.03	0.00
4460	1541412.213	734223.6042	0.90	0.00
4461	1541342.901	734154.3589	0.01	0.00
4462	1541341.428	734153.1493	0.00	0.00
4463	1541339.707	734152.2627	0.00	0.00
4464	1541338.702	734151.0694	0.00	0.00
4465	1541337.389	734150.2744	0.00	0.00
4466	1541335.849	734148.8932	0.00	-0.15
4467	1541334.128	734147.6294	0.00	-0.34
4468	1541332.384	734146.4515	0.00	-0.52
4469	1541536.77	734090.6702	0.00	0.00
4470	1541537.684	734092.3812	0.00	0.00
4471	1541539.084	734094.0799	0.00	0.00
4472	1541540.731	734095.7712	0.00	0.00
4473	1541542.166	734097.4662	0.00	0.00
4474	1541543.1	734099.1743	0.00	0.00
4475	1541543.556	734100.9224	0.00	0.00
4476	1541544.041	734102.8969	0.00	-0.24
4477	1541544.009	734105.2821	0.00	-0.61
4478	1541544.08	734107.2464	0.00	-0.91
4479	1541542.589	734107.9456	0.00	-1.09
4480	1541544.206	734109.2585	0.00	-1.22
4481	1541544.19	734111.2341	0.00	-1.47
4482	1541544.208	734113.2253	0.00	-1.55
4483	1541544.228	734115.2221	0.00	-1.60
4484	1541542.502	734115.6413	0.00	-1.81
4485	1541540.77	734115.9981	0.00	-2.01
4486	1541540.78	734117.9853	0.00	-2.13
4487	1541540.563	734119.99	0.00	-2.26
4488	1541539.902	734121.8092	0.00	-2.43
4489	1541538.894	734123.5231	0.00	-2.60
4490	1541537.792	734125.1962	0.00	-2.60
4491	1541538.902	734126.6369	0.00	-2.60

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
641	1541457.57	734130.3517	0.00	-0.61
642	1541457.325	734132.3347	0.00	-0.43
643	1541457.074	734134.3204	0.00	-0.24
644	1541456.823	734136.3063	0.00	-0.05
645	1541454.979	734137.0875	0.00	0.00
646	1541453.155	734137.7138	0.00	0.00
647	1541451.328	734138.3608	0.00	0.00
648	1541449.516	734138.8907	0.00	0.00
649	1541447.7	734139.4496	0.00	0.00
650	1541445.834	734140.3895	0.00	0.00
651	1541444.038	734140.7845	0.00	0.00
652	1541442.253	734141.0971	0.00	0.00
653	1541440.395	734141.977	0.00	0.00
654	1541438.591	734142.4328	0.00	0.00
655	1541436.807	734142.7416	0.00	0.00
656	1541434.953	734143.6031	0.00	0.00
657	1541433.111	734144.3615	0.00	0.00
658	1541431.263	734145.1693	0.00	0.00
659	1541429.438	734145.7889	0.00	0.00
660	1541427.674	734145.9226	0.00	0.00
661	1541425.919	734145.9865	0.00	0.00
662	1541424.185	734145.8839	0.00	0.00
663	1541393.185	734112.3782	0.00	0.00
664	1541393.793	734110.5621	0.00	0.00
665	1541394.14	734108.7775	0.00	0.00
666	1541394.443	734107.0041	0.00	0.00
667	1541394.793	734105.2591	0.00	0.00
668	1541393.885	734103.8141	0.00	0.00
669	1541393.452	734102.4602	0.00	0.00
670	1541394.333	734100.859	0.00	-0.01
671	1541394.715	734099.1457	0.00	-0.03
672	1541395.093	734097.41	0.00	-0.01
673	1541395.75	734095.6635	0.00	-0.01
674	1541396.754	734093.9082	0.00	-0.01
675	1541456.761	734092.5205	0.00	-1.63
676	1541457.725	734094.231	0.00	-1.73
677	1541459.098	734095.9318	0.00	-1.83
678	1541460.739	734097.6266	0.00	-1.91
679	1541462.228	734099.3255	0.00	-1.77
680	1541463.184	734101.036	0.00	-1.65
681	1541463.682	734102.7567	0.00	-1.53
682	1541464.01	734104.4811	0.00	-1.40
683	1541464.658	734106.1981	0.00	-2.48
684	1541463.775	734107.9516	0.00	-3.91
685	1541462.742	734109.7085	0.00	-4.04
686	1541463.408	734111.4257	0.00	-4.06
687	1541464.05	734113.1437	0.00	-4.22
688	1541462.797	734114.9061	0.00	-4.11
689	1541462.065	734116.6558	0.00	-3.64
690	1541461.822	734118.3928	0.00	-3.15
691	1541461.525	734120.129	0.00	-2.70
692	1541460.612	734121.859	0.00	-2.08
693	1541459.689	734123.6558	0.00	-1.56
694	1541459.649	734125.7551	0.00	-1.39
695	1541459.648	734127.6439	0.00	-1.28
696	1541459.379	734129.6668	0.00	-1.11
697	1541459.162	734131.6295	0.00	-0.94
698	1541458.912	734133.6127	0.00	-0.76
699	1541458.659	734135.5959	0.00	-0.56
700	1541458.408	734137.5786	0.00	-0.37
701	1541456.571	734138.292	0.00	0.00
702	1541454.728	734139.071	0.00	0.00
703	1541452.905	734139.6955	0.00	0.00
704	1541451.078	734140.344	0.00	0.00
705	1541449.265	734140.8744	0.00	0.00
706	1541447.449	734141.4337	0.00	0.00
707	1541445.583	734142.3749	0.00	0.00
708	1541443.787	734142.7693	0.00	0.00
709	1541442.002	734143.0812	0.00	0.00
710	1541440.144	734143.9615	0.00	0.00
711	1541438.34	734144.4178	0.00	0.00
712	1541436.556	734144.7255	0.00	0.00
713	1541434.702	734145.586	0.00	0.00
714	1541432.861	734146.3454	0.00	0.00
715	1541431.012	734147.1534	0.00	0.00
716	1541429.187	734147.7742	0.00	0.00
717	1541427.424	734147.9084	0.00	0.00
718	1541425.667	734147.9773	0.00	0.00
719	1541423.934	734147.8688	0.00	0.00
720	1541391.198	734112.612	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4492	1541540.053	734128.0256	0.00	-2.50
4493	1541539.007	734129.7287	0.00	-2.60
4494	1541538.001	734131.4555	0.00	-2.60
4495	1541539.227	734132.7906	0.00	-2.28
4496	1541538.249	734134.5324	0.00	-2.24
4497	1541539.245	734136.2994	0.00	-1.62
4498	1541538.239	734138.0232	0.00	-1.51
4499	1541539.075	734139.9853	0.00	-0.92
4500	1541539.958	734141.8233	0.00	-0.31
4501	1541538.807	734143.4552	0.00	-0.29
4502	1541537.618	734145.0608	0.00	-0.31
4503	1541536.438	734146.6739	0.00	-0.26
4504	1541537.167	734148.6146	0.01	0.00
4505	1541537.819	734150.6956	0.00	0.00
4506	1541536.831	734152.4338	0.00	0.00
4507	1541535.882	734154.1968	0.00	-0.01
4508	1541534.833	734155.8727	0.00	-0.02
4509	1541533.635	734157.476	0.00	-0.02
4510	1541532.417	734159.0584	0.06	0.00
4511	1541531.209	734160.6449	0.30	0.00
4512	1541530.081	734162.3236	0.72	0.00
4513	1541529.045	734164.0304	1.10	0.00
4514	1541527.941	734165.6768	1.40	0.00
4515	1541526.726	734167.268	1.61	0.00
4516	1541525.486	734168.8375	1.73	0.00
4517	1541524.231	734170.3947	1.73	0.00
4518	1541522.932	734171.9052	1.70	0.00
4519	1541521.57	734173.3423	1.59	0.00
4520	1541520.218	734174.8062	1.41	0.00
4521	1541519.063	734176.4756	1.04	0.00
4522	1541518.062	734178.414	0.56	0.00
4523	1541517.579	734180.5548	0.18	0.00
4524	1541517.091	734182.4985	0.23	0.00
4525	1541516.718	734184.2452	0.68	0.00
4526	1541515.582	734185.6692	1.48	0.00
4527	1541514.434	734187.2828	2.44	0.00
4528	1541513.314	734188.9615	3.42	0.00
4529	1541512.274	734190.6576	4.35	0.00
4530	1541511.23	734192.3638	4.47	0.00
4531	1541510.188	734194.072	4.47	0.00
4532	1541509.123	734195.7536	4.51	0.00
4533	1541508.027	734197.4325	4.53	0.00
4534	1541506.174	734197.0932	5.62	0.00
4535	1541504.287	734196.8343	6.12	0.00
4536	1541503.203	734198.5144	6.08	0.00
4537	1541501.221	734198.3908	6.52	0.00
4538	1541499.331	734198.1264	6.95	0.00
4539	1541497.27	734198.1268	7.37	0.00
4540	1541494.94	734198.5426	7.75	0.00
4541	1541493.853	734200.222	7.68	0.00
4542	1541491.606	734200.5058	8.04	0.00
4543	1541490.517	734202.1833	8.05	0.00
4544	1541489.427	734203.8597	8.04	0.00
4545	1541487.213	734204.0845	7.95	0.00
4546	1541484.922	734204.4266	7.77	0.00
4547	1541482.692	734204.672	7.52	0.00
4548	1541481.597	734206.3461	7.44	0.00
4549	1541479.402	734206.5399	7.20	0.00
4550	1541477.455	734206.3607	6.98	0.00
4551	1541476.371	734208.0398	6.85	0.00
4552	1541475.3	734209.727	6.38	0.00
4553	1541473.367	734209.5656	4.69	0.00
4554	1541471.488	734209.3254	2.39	0.00
4555	1541469.452	734209.3525	1.25	0.00
4556	1541467.32	734209.5491	1.18	0.00
4557	1541465.323	734209.523	1.15	0.00
4558	1541464.119	734211.138	1.37	0.00
4559	1541462.735	734212.5661	1.55	0.00
4560	1541460.78	734213.0146	1.60	0.00
4561	1541458.896	734213.7471	1.23	0.00
4562	1541457.154	734214.1297	0.59	0.00
4563	1541455.554	734215.0219	0.08	0.00
4564	1541454.058	734213.8782	0.00	-0.11
4565	1541452.294	734214.7096	0.00	-0.92
4566	1541450.357	734215.6685	0.00	-1.69
4567	1541448.361	734216.7164	0.00	-1.60
4568	1541448.185	734218.6434	0.00	-2.88
4569	1541446.285	734219.7154	0.00	-2.96
4570	1541444.243	734220.3242	0.00	-2.56
4571	1541442.44	734220.8975	0.00	-1.94

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
721	1541391.805	734110.7958	0.00	0.00
722	1541392.152	734109.0109	0.00	0.00
723	1541392.455	734107.2358	0.00	0.00
724	1541392.803	734105.4829	0.00	0.00
725	1541391.898	734103.9959	0.00	0.00
726	1541391.448	734102.5563	0.00	0.00
727	1541392.335	734100.9139	0.00	-0.02
728	1541392.716	734099.1935	0.00	-0.02
729	1541393.093	734097.4565	0.00	-0.02
730	1541393.751	734095.7099	0.00	-0.02
731	1541394.754	734093.9545	0.00	-0.07
732	1541458.761	734092.4743	0.00	-1.63
733	1541459.724	734094.1848	0.00	-1.73
734	1541461.098	734095.8855	0.00	-1.83
735	1541462.74	734097.5804	0.00	-1.89
736	1541464.228	734099.2792	0.00	-1.76
737	1541465.183	734100.9898	0.00	-1.63
738	1541465.68	734102.7105	0.00	-1.51
739	1541466.009	734104.4349	0.00	-1.39
740	1541466.658	734106.1518	0.00	-2.51
741	1541465.775	734107.9053	0.00	-4.01
742	1541464.742	734109.6622	0.00	-4.07
743	1541465.408	734111.3793	0.00	-4.59
744	1541466.051	734113.0973	0.00	-5.10
745	1541464.797	734114.8597	0.00	-4.78
746	1541464.064	734116.6095	0.00	-4.24
747	1541463.821	734118.3468	0.00	-3.77
748	1541463.523	734120.085	0.00	-3.32
749	1541462.621	734121.8311	0.00	-2.73
750	1541461.501	734123.5485	0.00	-2.12
751	1541460.797	734125.1748	0.00	-1.71
752	1541461.507	734127.1945	0.00	-1.78
753	1541461.015	734129.0486	0.00	-1.55
754	1541461.023	734130.9337	0.00	-1.46
755	1541460.767	734132.8775	0.00	-1.28
756	1541460.497	734134.8611	0.00	-1.08
757	1541460.247	734136.8417	0.00	-0.89
758	1541459.996	734138.8225	0.00	-0.71
759	1541458.157	734139.5616	0.00	-0.19
760	1541456.32	734140.2778	0.00	0.00
761	1541454.477	734141.0544	0.00	0.00
762	1541452.654	734141.6771	0.00	0.00
763	1541450.827	734142.3271	0.00	0.00
764	1541449.015	734142.858	0.00	0.00
765	1541447.198	734143.4177	0.00	0.00
766	1541445.332	734144.3604	0.00	0.00
767	1541443.536	734144.7542	0.00	0.00
768	1541441.751	734145.0653	0.00	0.00
769	1541439.893	734145.946	0.00	0.00
770	1541438.089	734146.4028	0.00	0.00
771	1541436.305	734146.7093	0.00	0.00
772	1541434.451	734147.5689	0.00	0.00
773	1541432.61	734148.3292	0.00	0.00
774	1541430.762	734149.1376	0.00	0.00
775	1541428.936	734149.7598	0.00	0.00
776	1541427.172	734149.8941	0.00	0.00
777	1541425.417	734149.9966	0.00	0.00
778	1541423.683	734149.8538	0.00	0.00
779	1541389.211	734112.8458	0.00	0.00
780	1541389.817	734111.0296	0.00	0.00
781	1541390.164	734109.2442	0.00	0.00
782	1541390.467	734107.4674	0.00	0.00
783	1541390.813	734105.7066	0.00	0.00
784	1541389.911	734104.1771	0.00	0.00
785	1541389.445	734102.6526	0.00	-0.01
786	1541390.337	734100.9687	0.00	-0.02
787	1541390.716	734099.2414	0.00	-0.02
788	1541391.093	734097.5031	0.00	-0.02
789	1541391.751	734095.7562	0.00	-0.02
790	1541392.753	734094.0007	0.00	-0.02
791	1541460.761	734092.428	0.00	-1.63
792	1541461.723	734094.1385	0.00	-1.73
793	1541463.098	734095.8393	0.00	-1.83
794	1541464.74	734097.5341	0.00	-1.85
795	1541466.227	734099.233	0.00	-1.75
796	1541467.182	734100.9435	0.00	-1.62
797	1541467.678	734102.6642	0.00	-1.50
798	1541468.008	734104.3886	0.00	-1.38
799	1541468.659	734106.1055	0.00	-2.54
800	1541467.775	734107.859	0.00	-4.04

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4572	1541440.524	734221.5716	0.00	-1.21
4573	1541438.663	734222.1152	0.00	-0.28
4574	1541436.882	734222.2415	0.83	0.00
4575	1541435.151	734222.1447	2.00	0.00
4576	1541433.418	734222.0653	2.80	0.00
4577	1541431.599	734222.3094	2.61	0.00
4578	1541429.687	734223.465	2.54	0.00
4579	1541427.762	734223.6613	2.30	0.00
4580	1541425.89	734223.8671	1.97	0.00
4581	1541423.847	734224.8922	2.09	0.00
4582	1541421.713	734225.289	2.03	0.00
4583	1541419.621	734226.1242	2.22	0.00
4584	1541418.106	734227.4414	2.63	0.00
4585	1541416.691	734226.5573	2.12	0.00
4586	1541414.815	734225.9631	1.63	0.00
4587	1541412.381	734225.4119	1.07	0.00
4588	1541410.285	734224.1368	0.89	0.00
4589	1541342.449	734156.3078	0.00	-0.01
4590	1541340.917	734155.1679	0.00	0.00
4591	1541339.643	734154.0467	0.00	0.00
4592	1541337.88	734153.6945	0.00	0.00
4593	1541337.567	734152.115	0.00	0.00
4594	1541335.86	734150.8976	0.00	0.00
4595	1541334.149	734149.6308	0.00	-0.19
4596	1541332.408	734148.4521	0.00	-0.37
4597	1541538.77	734090.624	0.00	0.00
4598	1541539.682	734092.3348	0.00	0.00
4599	1541541.081	734094.0331	0.00	0.00
4600	1541542.726	734095.7231	0.00	0.00
4601	1541544.156	734097.4155	0.00	0.00
4602	1541545.083	734099.1157	0.00	0.00
4603	1541545.505	734100.8284	0.00	0.00
4604	1541545.971	734102.404	0.00	-0.08
4605	1541545.764	734104.2837	0.00	-0.38
4606	1541545.852	734106.3177	0.00	-0.69
4607	1541545.886	734108.3042	0.00	-1.00
4608	1541545.914	734110.307	0.00	-1.28
4609	1541545.927	734112.3008	0.00	-1.35
4610	1541545.947	734114.2949	0.00	-1.35
4611	1541545.967	734116.2899	0.00	-1.43
4612	1541544.244	734117.2196	0.00	-1.69
4613	1541542.51	734117.6389	0.00	-1.91
4614	1541542.422	734119.638	0.00	-1.98
4615	1541542.004	734121.5503	0.00	-2.07
4616	1541541.115	734123.3011	0.00	-2.30
4617	1541540.008	734124.9685	0.00	-2.53
4618	1541541.149	734126.3527	0.00	-2.24
4619	1541542.333	734127.6655	0.00	-1.94
4620	1541541.251	734129.3459	0.00	-2.12
4621	1541540.22	734131.0573	0.00	-2.22
4622	1541541.196	734132.8145	0.00	-1.68
4623	1541540.22	734134.5565	0.00	-1.68
4624	1541541.098	734136.542	0.00	-1.05
4625	1541540.114	734138.2803	0.00	-0.99
4626	1541541.035	734140.1425	0.00	-0.36
4627	1541541.851	734142.1429	0.00	0.00
4628	1541540.724	734143.7868	0.00	0.00
4629	1541539.531	734145.3929	0.01	0.00
4630	1541538.331	734146.9847	0.03	0.00
4631	1541538.948	734149.0253	0.02	0.00
4632	1541539.616	734150.7444	0.00	0.00
4633	1541538.809	734152.3563	0.01	0.00
4634	1541537.863	734154.1435	0.01	0.00
4635	1541536.938	734156.0957	0.00	-0.02
4636	1541535.567	734157.8101	0.00	-0.05
4637	1541534.327	734159.4137	0.01	0.00
4638	1541533.112	734160.9824	0.14	0.00
4639	1541531.884	734162.3458	0.48	0.00
4640	1541531.087	734163.9964	0.77	0.00
4641	1541530.053	734165.8982	0.91	0.00
4642	1541528.67	734167.5946	1.06	0.00
4643	1541527.416	734169.1931	1.20	0.00
4644	1541526.166	734170.7617	1.24	0.00
4645	1541524.91	734172.3206	1.31	0.00
4646	1541523.587	734173.78	1.40	0.00
4647	1541522.177	734175.1343	1.45	0.00
4648	1541520.82	734176.3878	1.21	0.00
4649	1541520.077	734178.0308	0.87	0.00
4650	1541519.453	734179.8758	0.44	0.00
4651	1541519.061	734181.8329	0.18	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
801	1541466.741	734109.6158	0.00	-4.94
802	1541467.408	734111.3329	0.00	-5.46
803	1541468.052	734113.0509	0.00	-5.97
804	1541466.796	734114.8133	0.00	-5.54
805	1541466.063	734116.5631	0.00	-4.92
806	1541465.819	734118.3005	0.00	-4.42
807	1541465.519	734120.0393	0.00	-3.96
808	1541464.617	734121.7911	0.00	-3.39
809	1541463.458	734123.5489	0.00	-2.77
810	1541462.47	734125.3292	0.00	-2.26
811	1541463.369	734127.13	0.00	-2.42
812	1541462.712	734129.4632	0.00	-2.02
813	1541462.716	734131.8111	0.00	-1.84
814	1541462.345	734133.9775	0.00	-1.62
815	1541462.097	734135.9863	0.00	-1.42
816	1541461.845	734137.9759	0.00	-1.24
817	1541461.595	734139.9579	0.00	-1.07
818	1541459.745	734140.8027	0.00	-0.54
819	1541457.906	734141.5443	0.00	-0.01
820	1541456.069	734142.2635	0.00	0.00
821	1541454.226	734143.0378	0.00	0.00
822	1541452.404	734143.6588	0.00	0.00
823	1541450.576	734144.3102	0.00	0.00
824	1541448.764	734144.8416	0.00	0.00
825	1541446.947	734145.4017	0.00	0.00
826	1541445.081	734146.3459	0.00	0.00
827	1541443.285	734146.739	0.00	0.00
828	1541441.5	734147.0493	0.00	0.00
829	1541439.642	734147.9304	0.00	0.00
830	1541437.838	734148.3878	0.00	0.00
831	1541436.055	734148.6931	0.00	0.00
832	1541434.201	734149.5517	0.00	0.00
833	1541432.359	734150.313	0.00	0.00
834	1541430.511	734151.1217	0.00	0.00
835	1541428.68	734151.7457	0.00	0.00
836	1541426.902	734151.8764	0.00	0.00
837	1541425.018	734152.1415	0.00	0.00
838	1541423.433	734151.8387	0.00	0.00
839	1541387.224	734113.0796	0.00	0.00
840	1541387.829	734111.2634	0.00	0.00
841	1541388.176	734109.4775	0.00	0.00
842	1541388.478	734107.6992	0.00	0.00
843	1541388.823	734105.9305	0.00	0.00
844	1541387.923	734104.3578	0.00	0.00
845	1541387.442	734102.7491	0.00	-0.01
846	1541388.339	734101.0233	0.00	-0.02
847	1541388.716	734099.2892	0.00	-0.02
848	1541389.093	734097.5497	0.00	-0.03
849	1541389.752	734095.8025	0.00	0.00
850	1541390.753	734094.047	0.03	0.00
851	1541462.761	734092.3817	0.00	-1.63
852	1541463.722	734094.0923	0.00	-1.73
853	1541465.098	734095.793	0.00	-1.83
854	1541466.741	734097.4878	0.00	-1.81
855	1541468.227	734099.1867	0.00	-1.74
856	1541469.181	734100.8973	0.00	-1.61
857	1541469.676	734102.618	0.00	-1.49
858	1541470.007	734104.3423	0.00	-1.36
859	1541470.659	734106.0591	0.00	-2.58
860	1541469.774	734107.8126	0.00	-4.07
861	1541468.74	734109.5695	0.00	-5.24
862	1541469.408	734111.2866	0.00	-6.07
863	1541470.053	734113.0045	0.00	-6.65
864	1541468.795	734114.7669	0.00	-6.29
865	1541468.061	734116.5166	0.00	-5.62
866	1541467.818	734118.254	0.00	-5.14
867	1541467.516	734119.9928	0.00	-4.65
868	1541466.616	734121.7447	0.00	-4.05
869	1541465.454	734123.5032	0.00	-3.45
870	1541464.408	734125.262	0.00	-2.92
871	1541465.327	734126.9356	0.00	-3.09
872	1541464.304	734128.6088	0.00	-2.62
873	1541464.676	734130.4124	0.00	-2.60
874	1541464.346	734131.9527	0.00	-2.37
875	1541464.128	734133.5036	0.00	-2.17
876	1541463.908	734135.4381	0.00	-1.92
877	1541463.655	734137.4142	0.00	-1.74
878	1541463.41	734139.3948	0.00	-1.47
879	1541463.16	734141.3776	0.00	-1.18
880	1541461.344	734141.9403	0.00	-0.78

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4652	1541518.655	734183.7837	0.28	0.00
4653	1541517.834	734185.7732	0.68	0.00
4654	1541516.44	734187.463	1.62	0.00
4655	1541515.208	734188.8754	2.54	0.00
4656	1541514.417	734190.4865	2.96	0.00
4657	1541513.371	734192.1757	2.99	0.00
4658	1541512.319	734193.8987	2.98	0.00
4659	1541511.27	734195.8097	2.84	0.00
4660	1541509.978	734197.5907	2.92	0.00
4661	1541508.895	734199.2921	2.83	0.00
4662	1541506.924	734199.095	4.53	0.00
4663	1541505.088	734198.7786	5.61	0.00
4664	1541503.998	734200.4628	5.59	0.00
4665	1541502.118	734200.1943	6.04	0.00
4666	1541500.137	734200.0702	6.46	0.00
4667	1541498.247	734199.8048	6.88	0.00
4668	1541496.185	734199.8058	7.29	0.00
4669	1541495.099	734201.4842	7.22	0.00
4670	1541492.766	734201.9008	7.63	0.00
4671	1541491.677	734203.5785	7.59	0.00
4672	1541490.586	734205.2551	7.57	0.00
4673	1541488.335	734205.5349	8.02	0.00
4674	1541486.12	734205.7585	7.97	0.00
4675	1541483.827	734206.1004	7.68	0.00
4676	1541482.732	734207.7738	7.60	0.00
4677	1541480.503	734208.021	7.37	0.00
4678	1541478.314	734208.2162	7.15	0.00
4679	1541477.234	734209.8986	7.15	0.00
4680	1541476.171	734211.5913	7.19	0.00
4681	1541474.248	734211.4259	5.70	0.00
4682	1541472.325	734211.2707	3.62	0.00
4683	1541470.455	734211.0343	1.50	0.00
4684	1541468.419	734211.0711	1.43	0.00
4685	1541466.245	734211.264	1.43	0.00
4686	1541465.026	734213.0115	1.70	0.00
4687	1541463.35	734214.1873	1.84	0.00
4688	1541461.56	734214.6169	1.89	0.00
4689	1541459.681	734215.276	1.77	0.00
4690	1541457.591	734215.9151	1.02	0.00
4691	1541455.601	734216.8653	0.00	-0.17
4692	1541453.74	734215.8208	0.00	-1.10
4693	1541451.923	734216.6676	0.00	-2.40
4694	1541450.072	734217.6308	0.00	-2.70
4695	1541450.172	734219.4901	0.00	-3.47
4696	1541448.409	734220.4545	0.00	-4.15
4697	1541447.039	734221.5282	0.00	-4.51
4698	1541445.579	734221.6002	0.00	-3.95
4699	1541444.102	734222.5263	0.00	-3.77
4700	1541442.019	734222.7903	0.00	-2.63
4701	1541440.11	734223.5282	0.00	-1.66
4702	1541438.221	734224.0611	0.00	-0.55
4703	1541436.422	734224.183	0.72	0.00
4704	1541434.69	734224.0856	1.95	0.00
4705	1541432.966	734224.0037	3.06	0.00
4706	1541431.352	734224.1275	2.92	0.00
4707	1541430.597	734225.7458	3.23	0.00
4708	1541428.909	734225.4986	2.93	0.00
4709	1541427.108	734225.5371	2.72	0.00
4710	1541425.438	734225.6316	2.59	0.00
4711	1541424.454	734227.1315	3.05	0.00
4712	1541422.769	734226.7833	2.75	0.00
4713	1541420.943	734226.9343	2.67	0.00
4714	1541419.594	734228.2336	3.08	0.00
4715	1541418.071	734229.7708	3.58	0.00
4716	1541416.6	734228.7129	3.01	0.00
4717	1541415.091	734227.7095	2.38	0.00
4718	1541413.374	734226.9233	1.81	0.00
4719	1541411.578	734227.3248	1.71	0.00
4720	1541410.27	734225.9284	1.05	0.00
4721	1541408.356	734224.6693	0.88	0.00
4722	1541341.996	734158.2567	0.00	-0.01
4723	1541340.424	734157.0605	0.00	0.00
4724	1541338.522	734155.8337	0.00	0.00
4725	1541336.158	734154.7702	0.00	0.00
4726	1541335.913	734152.7862	0.00	0.00
4727	1541334.164	734151.6344	0.00	-0.03
4728	1541332.432	734150.4527	0.00	-0.22
4729	1541540.77	734090.5777	0.00	0.00
4730	1541541.679	734092.2884	0.00	0.00
4731	1541543.077	734093.9862	0.00	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
881	1541459.495	734142.7831	0.00	-0.34
882	1541457.655	734143.5271	0.00	0.00
883	1541455.818	734144.2492	0.00	0.00
884	1541453.976	734145.0212	0.00	0.00
885	1541452.153	734145.6404	0.00	0.00
886	1541450.325	734146.2933	0.00	0.00
887	1541448.513	734146.8251	0.00	0.00
888	1541446.696	734147.3857	0.00	0.00
889	1541444.83	734148.3313	0.00	0.00
890	1541443.034	734148.7238	0.00	0.00
891	1541441.249	734149.0334	0.00	0.00
892	1541439.392	734149.9149	0.00	0.00
893	1541437.587	734150.3728	0.00	0.00
894	1541435.804	734150.677	0.00	0.00
895	1541433.95	734151.5346	0.00	0.00
896	1541432.108	734152.2968	0.00	0.00
897	1541430.26	734153.1058	0.00	0.00
898	1541428.429	734153.7265	0.00	0.00
899	1541426.655	734153.8527	0.00	0.00
900	1541424.864	734154.3414	0.00	0.00
901	1541423.182	734153.8236	0.00	0.00
902	1541385.237	734113.3134	0.00	0.00
903	1541385.841	734111.4971	0.00	0.00
904	1541386.188	734109.7109	0.00	0.00
905	1541386.49	734107.931	0.00	0.00
906	1541386.833	734106.1545	0.00	0.00
907	1541385.935	734104.538	0.00	0.00
908	1541385.439	734102.8458	0.00	-0.01
909	1541386.341	734101.0778	0.00	-0.02
910	1541386.717	734099.3369	0.00	-0.02
911	1541387.093	734097.5963	0.00	-0.03
912	1541387.753	734095.8489	0.03	0.00
913	1541388.753	734094.0932	0.10	0.00
914	1541464.762	734092.3355	0.00	-1.62
915	1541465.721	734094.0461	0.00	-1.73
916	1541467.099	734095.7468	0.00	-1.82
917	1541468.741	734097.4415	0.00	-1.78
918	1541470.226	734099.1405	0.00	-1.72
919	1541471.18	734100.851	0.00	-1.60
920	1541471.675	734102.5717	0.00	-1.47
921	1541472.006	734104.296	0.00	-1.35
922	1541472.659	734106.0128	0.00	-2.63
923	1541471.774	734107.7663	0.00	-4.14
924	1541470.74	734109.5231	0.00	-5.42
925	1541471.408	734111.2402	0.00	-6.62
926	1541472.054	734112.958	0.00	-6.64
927	1541470.794	734114.7205	0.00	-6.67
928	1541470.06	734116.4702	0.00	-6.34
929	1541469.816	734118.2076	0.00	-5.84
930	1541469.513	734119.9464	0.00	-5.37
931	1541468.614	734121.6982	0.00	-4.73
932	1541467.455	734123.4559	0.00	-4.13
933	1541466.412	734125.2086	0.00	-3.61
934	1541467.304	734126.9231	0.00	-3.75
935	1541466.052	734128.6762	0.00	-3.20
936	1541466.709	734130.3998	0.00	-3.28
937	1541465.936	734132.4066	0.00	-2.86
938	1541465.802	734134.4474	0.00	-2.64
939	1541465.493	734136.4533	0.00	-2.31
940	1541465.279	734138.4163	0.00	-1.97
941	1541465.029	734140.3982	0.00	-1.64
942	1541464.777	734142.3804	0.00	-1.37
943	1541462.909	734143.3604	0.00	-0.91
944	1541461.094	734143.9226	0.00	-0.51
945	1541459.244	734144.7635	0.00	-0.06
946	1541457.405	734145.5098	0.06	0.00
947	1541455.567	734146.2349	0.00	0.00
948	1541453.725	734147.0046	0.00	0.00
949	1541451.902	734147.6219	0.00	0.00
950	1541450.074	734148.2764	0.00	0.00
951	1541448.262	734148.8087	0.00	0.00
952	1541446.445	734149.3697	0.00	0.00
953	1541444.579	734150.3167	0.00	0.00
954	1541442.783	734150.7086	0.00	0.00
955	1541440.998	734151.0174	0.00	0.00
956	1541439.141	734151.8993	0.00	0.00
957	1541437.336	734152.3577	0.00	0.00
958	1541435.553	734152.6608	0.00	0.00
959	1541433.699	734153.5174	0.00	0.00
960	1541431.858	734154.2806	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4732	1541544.719	734095.6753	0.00	0.00
4733	1541546.151	734097.3654	0.00	0.00
4734	1541547.072	734099.0827	0.00	0.00
4735	1541547.497	734100.8435	0.00	0.00
4736	1541547.589	734102.8182	0.00	-0.07
4737	1541547.57	734104.797	0.00	-0.38
4738	1541547.602	734106.7829	0.00	-0.69
4739	1541547.62	734108.7751	0.00	-0.99
4740	1541547.64	734110.7683	0.00	-1.10
4741	1541547.659	734112.7616	0.00	-1.13
4742	1541547.68	734114.7554	0.00	-1.18
4743	1541547.699	734116.7503	0.00	-1.23
4744	1541545.976	734118.2914	0.00	-1.44
4745	1541544.22	734119.2192	0.00	-1.72
4746	1541544.025	734121.1998	0.00	-1.78
4747	1541543.362	734123.0146	0.00	-1.91
4748	1541542.284	734124.703	0.00	-1.97
4749	1541543.473	734126.0165	0.00	-1.74
4750	1541544.363	734127.7327	0.00	-1.42
4751	1541543.252	734129.392	0.00	-1.57
4752	1541542.2	734131.0888	0.00	-1.60
4753	1541543.044	734133.0516	0.00	-1.13
4754	1541542.064	734134.793	0.00	-1.12
4755	1541543.007	734136.6674	0.00	-0.49
4756	1541542.04	734138.4165	0.00	-0.43
4757	1541542.895	734140.4436	0.00	-0.01
4758	1541543.66	734142.5917	0.00	-0.03
4759	1541542.561	734144.2445	0.02	0.00
4760	1541541.36	734145.8493	0.01	0.00
4761	1541540.154	734147.4418	0.02	0.00
4762	1541540.843	734149.4008	0.01	0.00
4763	1541541.17	734151.7998	0.01	0.00
4764	1541540.001	734153.4139	0.00	-0.04
4765	1541539.337	734155.301	0.00	-0.52
4766	1541538.355	734157.0426	0.00	-0.67
4767	1541537.149	734158.6364	0.00	-0.52
4768	1541535.913	734160.2094	0.00	-0.10
4769	1541534.663	734161.7716	0.00	-0.01
4770	1541533.424	734163.3398	0.36	0.00
4771	1541532.448	734165.0864	0.41	0.00
4772	1541531.472	734166.833	0.44	0.00
4773	1541530.262	734168.4211	0.51	0.00
4774	1541529.004	734169.9772	0.61	0.00
4775	1541527.758	734171.5423	0.66	0.00
4776	1541526.515	734173.1104	0.71	0.00
4777	1541525.273	734174.6786	0.76	0.00
4778	1541523.78	734175.9872	0.89	0.00
4779	1541522.224	734177.2378	0.96	0.00
4780	1541521.369	734179.0219	0.68	0.00
4781	1541520.981	734180.9846	0.25	0.00
4782	1541520.61	734182.9503	0.10	0.00
4783	1541520.323	734184.9304	0.10	0.00
4784	1541519.274	734186.6084	0.37	0.00
4785	1541518.044	734188.1868	1.22	0.00
4786	1541516.844	734189.7855	1.46	0.00
4787	1541515.809	734191.4975	1.44	0.00
4788	1541514.773	734193.2095	1.39	0.00
4789	1541513.738	734194.9215	1.33	0.00
4790	1541512.675	734196.6165	1.27	0.00
4791	1541511.59	734198.2975	1.21	0.00
4792	1541510.505	734199.9784	1.13	0.00
4793	1541509.42	734201.6594	1.04	0.00
4794	1541507.735	734200.7123	2.94	0.00
4795	1541505.832	734200.7923	4.42	0.00
4796	1541504.77	734202.4749	4.27	0.00
4797	1541502.921	734202.1462	5.55	0.00
4798	1541501.033	734201.8739	5.98	0.00
4799	1541499.051	734201.7493	6.39	0.00
4800	1541497.162	734201.4828	6.81	0.00
4801	1541496.076	734203.1603	6.74	0.00
4802	1541494.012	734203.162	7.16	0.00
4803	1541492.923	734204.8386	7.13	0.00
4804	1541491.832	734206.5141	7.09	0.00
4805	1541489.493	734206.9305	7.54	0.00
4806	1541487.242	734207.2089	8.01	0.00
4807	1541485.026	734207.4314	7.85	0.00
4808	1541483.931	734209.1038	7.78	0.00
4809	1541481.639	734209.4482	7.56	0.00
4810	1541479.415	734209.6993	7.35	0.00
4811	1541478.338	734211.3849	7.37	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
961	1541430.009	734155.0899	0.00	0.00
962	1541428.179	734155.709	0.00	0.00
963	1541426.418	734155.8475	0.00	0.00
964	1541424.609	734156.3522	0.00	0.00
965	1541422.931	734155.8086	0.00	0.00
966	1541383.25	734113.5472	0.00	0.00
967	1541383.853	734111.7309	0.00	0.00
968	1541384.2	734109.9443	0.00	0.00
969	1541384.502	734108.1628	0.00	0.00
970	1541384.843	734106.3788	0.00	0.00
971	1541383.946	734104.7176	0.01	0.00
972	1541383.436	734102.9426	0.02	0.00
973	1541384.343	734101.1321	0.00	-0.01
974	1541384.717	734099.3847	0.00	-0.02
975	1541385.093	734097.6429	0.00	-0.03
976	1541385.754	734095.8952	0.07	0.00
977	1541386.753	734094.1395	0.15	0.00
978	1541466.762	734092.2892	0.00	-1.62
979	1541467.721	734093.9998	0.00	-1.73
980	1541469.099	734095.7005	0.00	-1.77
981	1541470.742	734097.3953	0.00	-1.76
982	1541472.226	734099.0942	0.00	-1.71
983	1541473.18	734100.8048	0.00	-1.58
984	1541473.673	734102.5255	0.00	-1.46
985	1541474.005	734104.2497	0.00	-1.34
986	1541474.659	734105.9665	0.00	-2.69
987	1541473.774	734107.72	0.00	-4.20
988	1541472.739	734109.4768	0.00	-5.67
989	1541473.408	734111.1938	0.00	-6.61
990	1541474.054	734112.9116	0.00	-6.63
991	1541472.794	734114.674	0.00	-6.66
992	1541472.059	734116.4237	0.00	-6.69
993	1541471.814	734118.1611	0.00	-6.50
994	1541471.51	734119.8999	0.00	-5.98
995	1541470.613	734121.6517	0.00	-5.41
996	1541469.456	734123.41	0.00	-4.78
997	1541468.408	734125.1671	0.00	-4.27
998	1541469.296	734126.878	0.00	-4.40
999	1541468.013	734128.6364	0.00	-3.84
1000	1541468.729	734130.3198	0.00	-3.96
1001	1541467.669	734131.9135	0.00	-3.48
1002	1541467.933	734133.7272	0.00	-3.33
1003	1541467.22	734135.4152	0.00	-2.93
1004	1541467.184	734137.1861	0.00	-2.67
1005	1541466.935	734139.1459	0.00	-2.34
1006	1541466.679	734141.1351	0.00	-2.01
1007	1541466.43	734143.1184	0.00	-1.68
1008	1541464.527	734144.3622	0.00	-1.11
1009	1541462.658	734145.3431	0.00	-0.66
1010	1541460.843	734145.9049	0.00	-0.26
1011	1541458.994	734146.7438	0.17	0.00
1012	1541457.154	734147.4925	0.16	0.00
1013	1541455.315	734148.2205	0.04	0.00
1014	1541453.474	734148.9879	0.00	0.00
1015	1541451.652	734149.6035	0.00	0.00
1016	1541449.824	734150.2594	0.00	0.00
1017	1541448.011	734150.7922	0.00	0.00
1018	1541446.194	734151.3536	0.00	0.00
1019	1541444.328	734152.3021	0.00	0.00
1020	1541442.532	734152.6933	0.00	0.00
1021	1541440.748	734153.0014	0.00	0.00
1022	1541438.89	734153.8837	0.00	0.00
1023	1541437.086	734154.3426	0.00	0.00
1024	1541435.302	734154.6445	0.00	0.00
1025	1541433.449	734155.5003	0.00	0.00
1026	1541431.607	734156.2644	0.00	0.00
1027	1541429.759	734157.074	0.00	0.00
1028	1541427.933	734157.6999	0.00	0.00
1029	1541426.169	734157.8365	0.00	0.00
1030	1541424.357	734158.3451	0.00	0.00
1031	1541422.68	734157.7935	0.00	0.00
1032	1541381.263	734113.781	0.00	0.00
1033	1541381.865	734111.9647	0.00	0.00
1034	1541382.213	734110.1777	0.00	0.00
1035	1541382.514	734108.3947	0.00	0.00
1036	1541382.853	734106.6032	0.00	0.00
1037	1541381.956	734104.8969	0.07	0.00
1038	1541381.434	734103.0396	0.05	0.00
1039	1541382.344	734101.1863	0.01	0.00
1040	1541382.717	734099.4323	0.00	-0.01

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4812	1541477.28	734213.0823	7.41	0.00
4813	1541475.131	734213.298	7.20	0.00
4814	1541473.218	734213.1395	4.70	0.00
4815	1541471.305	734212.9892	2.07	0.00
4816	1541469.436	734212.7516	1.70	0.00
4817	1541467.346	734212.765	1.67	0.00
4818	1541466.363	734214.5697	1.96	0.00
4819	1541464.583	734215.3587	2.05	0.00
4820	1541462.693	734216.1087	2.16	0.00
4821	1541460.804	734216.7079	2.27	0.00
4822	1541458.91	734217.354	1.76	0.00
4823	1541457.066	734218.0777	1.01	0.00
4824	1541455.228	734218.8928	0.00	-0.95
4825	1541453.744	734217.6895	0.00	-1.87
4826	1541451.942	734218.5636	0.00	-2.60
4827	1541451.642	734220.6534	0.00	-4.08
4828	1541449.885	734221.6145	0.00	-5.03
4829	1541448.186	734222.6822	0.00	-5.20
4830	1541446.241	734223.5634	0.00	-5.51
4831	1541444.722	734224.8429	0.00	-4.96
4832	1541443.238	734224.1485	0.00	-3.78
4833	1541441.564	734224.7573	0.00	-2.75
4834	1541439.629	734225.4707	0.00	-1.59
4835	1541437.696	734225.9851	0.00	-0.15
4836	1541435.874	734226.1018	1.21	0.00
4837	1541434.122	734226.0057	2.45	0.00
4838	1541432.371	734225.9362	3.48	0.00
4839	1541431.649	734227.7749	4.06	0.00
4840	1541429.882	734227.5895	3.79	0.00
4841	1541428.135	734227.3673	3.52	0.00
4842	1541426.271	734227.3729	3.35	0.00
4843	1541425.259	734229.0691	3.94	0.00
4844	1541423.41	734228.8062	3.65	0.00
4845	1541421.625	734228.457	3.35	0.00
4846	1541420.278	734229.8804	3.82	0.00
4847	1541419.069	734231.2119	3.37	0.00
4848	1541417.461	734232.0404	3.18	0.00
4849	1541416.206	734230.8545	3.86	0.00
4850	1541414.863	734229.6828	3.23	0.00
4851	1541413.278	734228.5639	2.54	0.00
4852	1541411.399	734229.1793	2.53	0.00
4853	1541409.693	734227.8846	1.65	0.00
4854	1541408.327	734226.4726	1.05	0.00
4855	1541406.427	734225.2019	0.87	0.00
4856	1541341.544	734160.2057	0.01	0.00
4857	1541340.015	734159.0098	0.00	0.00
4858	1541338.286	734157.9381	0.00	0.00
4859	1541336.259	734156.7897	0.00	0.00
4860	1541334.266	734155.6403	0.00	0.00
4861	1541334.216	734153.6461	0.00	0.00
4862	1541332.456	734152.4533	0.00	-0.06
4863	1541542.771	734090.5315	0.00	0.00
4864	1541543.676	734092.2418	0.00	0.00
4865	1541545.071	734093.9391	0.00	0.00
4866	1541546.714	734095.6253	0.00	0.00
4867	1541548.126	734097.3545	0.00	0.00
4868	1541549.002	734099.1581	0.00	0.00
4869	1541549.276	734101.0444	0.00	0.00
4870	1541549.299	734103.0395	0.00	-0.03
4871	1541549.311	734105.0292	0.00	-0.34
4872	1541549.331	734107.0214	0.00	-0.65
4873	1541549.349	734109.0145	0.00	-0.91
4874	1541549.369	734111.0086	0.00	-0.95
4875	1541549.389	734113.0032	0.00	-0.91
4876	1541549.41	734114.9988	0.00	-0.95
4877	1541549.43	734117.0014	0.00	-0.98
4878	1541547.709	734118.7522	0.00	-1.23
4879	1541545.921	734120.3101	0.00	-1.51
4880	1541545.712	734122.443	0.00	-1.48
4881	1541544.623	734124.3496	0.00	-1.56
4882	1541545.53	734126.1067	0.00	-1.26
4883	1541546.274	734128.0072	0.00	-0.92
4884	1541545.135	734129.6483	0.00	-1.04
4885	1541544.061	734131.3325	0.00	-1.09
4886	1541544.959	734133.1801	0.00	-0.55
4887	1541543.97	734134.9165	0.00	-0.54
4888	1541544.831	734136.9384	0.00	0.00
4889	1541543.874	734138.6945	0.00	0.00
4890	1541544.664	734140.8594	0.00	-0.03
4891	1541545.691	734142.5694	0.00	-0.06

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1041	1541383.093	734097.6894	0.02	0.00
1042	1541383.755	734095.9415	0.11	0.00
1043	1541384.752	734094.1858	0.19	0.00
1044	1541468.762	734092.243	0.00	-1.62
1045	1541469.72	734093.9536	0.00	-1.73
1046	1541471.099	734095.6543	0.00	-1.73
1047	1541472.743	734097.349	0.00	-1.74
1048	1541474.225	734099.0479	0.00	-1.69
1049	1541475.179	734100.7585	0.00	-1.57
1050	1541475.671	734102.4792	0.00	-1.40
1051	1541476.004	734104.2034	0.00	-1.31
1052	1541476.659	734105.9201	0.00	-2.72
1053	1541475.774	734107.6736	0.00	-4.27
1054	1541474.738	734109.4304	0.00	-5.75
1055	1541475.408	734111.1474	0.00	-6.60
1056	1541476.055	734112.8651	0.00	-6.60
1057	1541474.793	734114.6276	0.00	-6.65
1058	1541474.058	734116.3772	0.00	-6.68
1059	1541473.813	734118.1146	0.00	-6.71
1060	1541473.507	734119.8534	0.00	-6.56
1061	1541472.612	734121.6052	0.00	-5.93
1062	1541471.457	734123.3633	0.00	-5.38
1063	1541470.405	734125.1206	0.00	-4.85
1064	1541471.291	734126.8313	0.00	-4.90
1065	1541470.012	734128.5873	0.00	-4.47
1066	1541470.709	734130.3055	0.00	-4.45
1067	1541469.463	734132.07	0.00	-3.98
1068	1541470.033	734133.7853	0.00	-3.89
1069	1541469.06	734135.7555	0.00	-3.39
1070	1541468.928	734137.7937	0.00	-3.10
1071	1541468.592	734139.761	0.00	-2.78
1072	1541468.355	734141.7391	0.00	-2.48
1073	1541468.098	734143.7297	0.00	-2.17
1074	1541466.178	734145.1061	0.00	-1.35
1075	1541464.276	734146.3446	0.00	-0.88
1076	1541462.407	734147.3258	0.00	-0.43
1077	1541460.592	734147.8872	0.00	-0.05
1078	1541458.743	734148.7241	0.36	0.00
1079	1541456.903	734149.4752	0.25	0.00
1080	1541455.064	734150.2061	0.13	0.00
1081	1541453.223	734150.9712	0.02	0.00
1082	1541451.401	734151.585	0.00	0.00
1083	1541449.573	734152.2424	0.00	0.00
1084	1541447.76	734152.7757	0.00	0.00
1085	1541445.943	734153.3375	0.00	0.00
1086	1541444.077	734154.2875	0.00	0.00
1087	1541442.281	734154.6781	0.00	0.00
1088	1541440.497	734154.9854	0.00	0.00
1089	1541438.639	734155.8681	0.00	0.00
1090	1541436.835	734156.3275	0.00	0.00
1091	1541435.051	734156.6283	0.00	0.00
1092	1541433.198	734157.4831	0.00	0.00
1093	1541431.356	734158.2481	0.01	0.00
1094	1541429.508	734159.0581	0.02	0.00
1095	1541427.682	734159.6851	0.00	0.00
1096	1541425.918	734159.8221	0.00	0.00
1097	1541424.106	734160.3311	0.00	0.00
1098	1541422.429	734159.7785	0.00	0.00
1099	1541379.276	734114.0148	0.00	0.00
1100	1541379.877	734112.1985	0.00	0.00
1101	1541380.225	734110.4111	0.00	0.00
1102	1541380.526	734108.6267	0.00	0.00
1103	1541380.863	734106.8278	0.00	0.00
1104	1541379.966	734105.0757	0.15	0.00
1105	1541379.432	734103.1367	0.11	0.00
1106	1541380.346	734101.2403	0.02	0.00
1107	1541380.718	734099.48	0.00	0.00
1108	1541381.094	734097.736	0.07	0.00
1109	1541381.756	734095.9878	0.16	0.00
1110	1541382.752	734094.232	0.24	0.00
1111	1541470.762	734092.1967	0.00	-1.62
1112	1541471.719	734093.9073	0.00	-1.73
1113	1541473.099	734095.608	0.00	-1.70
1114	1541474.743	734097.3027	0.00	-1.72
1115	1541476.224	734099.0017	0.00	-1.68
1116	1541477.178	734100.7122	0.00	-1.42
1117	1541477.669	734102.433	0.00	-1.24
1118	1541478.004	734104.1571	0.00	-1.14
1119	1541478.66	734105.8738	0.00	-2.65
1120	1541477.773	734107.6273	0.00	-4.21

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4892	1541544.651	734144.4937	0.03	0.00
4893	1541543.266	734146.1991	0.05	0.00
4894	1541542.042	734147.8165	0.03	0.00
4895	1541542.388	734150.2121	0.03	0.00
4896	1541508.335	734203.3403	0.94	0.00
4897	1541506.948	734202.317	2.64	0.00
4898	1541505.861	734203.9763	2.54	0.00
4899	1541503.685	734204.1554	4.10	0.00
4900	1541501.834	734203.826	5.49	0.00
4901	1541499.948	734203.5532	5.91	0.00
4902	1541497.966	734203.428	6.32	0.00
4903	1541496.879	734205.106	6.26	0.00
4904	1541494.989	734204.837	6.69	0.00
4905	1541493.9	734206.5124	6.65	0.00
4906	1541492.809	734208.1865	6.60	0.00
4907	1541490.74	734208.1883	7.06	0.00
4908	1541488.399	734208.6046	7.52	0.00
4909	1541486.146	734208.8817	7.96	0.00
4910	1541485.05	734210.5542	7.91	0.00
4911	1541482.838	734210.7774	7.76	0.00
4912	1541480.552	734211.1268	7.56	0.00
4913	1541479.478	734212.8139	7.58	0.00
4914	1541478.426	734214.5145	7.64	0.00
4915	1541476.246	734214.7956	7.51	0.00
4916	1541474.116	734215.0209	4.49	0.00
4917	1541472.212	734214.8669	3.20	0.00
4918	1541470.293	734214.7212	2.00	0.00
4919	1541468.413	734214.4291	1.94	0.00
4920	1541467.464	734216.0401	2.19	0.00
4921	1541465.871	734216.7921	2.29	0.00
4922	1541464.045	734217.4674	2.40	0.00
4923	1541462.142	734218.0809	2.51	0.00
4924	1541460.248	734218.7156	2.81	0.00
4925	1541458.381	734219.4167	2.86	0.00
4926	1541456.541	734220.1821	0.05	0.00
4927	1541454.726	734221.0158	0.00	-1.62
4928	1541453.42	734219.7446	0.00	-2.60
4929	1541452.942	734221.9073	0.00	-3.19
4930	1541451.184	734222.8561	0.00	-4.73
4931	1541449.468	734223.8625	0.00	-5.45
4932	1541447.737	734224.89	0.00	-6.48
4933	1541446.101	734225.991	0.00	-6.33
4934	1541444.443	734227.1476	0.00	-5.27
4935	1541443.039	734226.0515	0.00	-3.96
4936	1541441.133	734226.7111	0.00	-2.48
4937	1541439.054	734227.3714	0.00	-0.82
4938	1541437.081	734227.8846	0.76	0.00
4939	1541435.228	734227.9919	2.17	0.00
4940	1541433.448	734227.8865	3.49	0.00
4941	1541432.648	734229.7076	3.49	0.00
4942	1541430.814	734229.584	3.62	0.00
4943	1541429.007	734229.3756	4.04	0.00
4944	1541427.208	734229.1391	4.15	0.00
4945	1541426.122	734230.8006	3.16	0.00
4946	1541424.093	734230.6793	3.27	0.00
4947	1541422.167	734230.3535	3.56	0.00
4948	1541420.774	734231.741	3.00	0.00
4949	1541419.192	734232.997	2.53	0.00
4950	1541417.501	734233.9929	2.33	0.00
4951	1541415.732	734232.9779	3.02	0.00
4952	1541414.398	734231.7264	4.05	0.00
4953	1541413.03	734230.4458	3.35	0.00
4954	1541411.142	734231.053	3.41	0.00
4955	1541409.49	734229.7374	2.50	0.00
4956	1541407.777	734228.4214	1.56	0.00
4957	1541406.396	734227.0074	1.05	0.00
4958	1541404.499	734225.7344	0.86	0.00
4959	1541341.092	734162.1546	0.02	0.00
4960	1541339.589	734160.959	0.00	0.00
4961	1541337.966	734159.9097	0.00	0.00
4962	1541336.143	734158.7682	0.00	0.00
4963	1541334.285	734157.62	0.00	0.00
4964	1541332.504	734156.4546	0.00	0.00
4965	1541332.48	734154.4539	0.00	0.00
4966	1541544.771	734090.4852	0.00	0.00
4967	1541545.672	734092.1959	0.00	0.00
4968	1541547.068	734093.8934	0.00	0.00
4969	1541548.707	734095.6179	0.00	0.00
4970	1541550.172	734097.3988	0.00	0.00
4971	1541550.913	734099.181	0.00	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1121	1541476.738	734109.3841	0.00	-5.77
1122	1541477.408	734111.1009	0.00	-6.47
1123	1541478.055	734112.8186	0.00	-6.42
1124	1541476.792	734114.5811	0.00	-6.54
1125	1541476.057	734116.3308	0.00	-6.61
1126	1541475.811	734118.0681	0.00	-6.63
1127	1541475.503	734119.8069	0.00	-6.65
1128	1541474.61	734121.5586	0.00	-6.41
1129	1541473.457	734123.3167	0.00	-5.83
1130	1541472.403	734125.074	0.00	-5.38
1131	1541473.286	734126.7854	0.00	-5.26
1132	1541472.006	734128.545	0.00	-4.85
1133	1541472.705	734130.2589	0.00	-4.72
1134	1541471.432	734132.0212	0.00	-4.35
1135	1541472.091	734133.7064	0.00	-4.26
1136	1541470.945	734135.284	0.00	-3.97
1137	1541471.082	734137.0165	0.00	-3.83
1138	1541470.484	734138.872	0.00	-3.43
1139	1541470.257	734140.7433	0.00	-3.17
1140	1541469.969	734142.7467	0.00	-2.88
1141	1541469.721	734144.732	0.00	-2.61
1142	1541467.847	734145.7154	0.00	-1.86
1143	1541465.926	734147.092	0.00	-1.12
1144	1541464.025	734148.3266	0.00	-0.66
1145	1541462.156	734149.3086	0.00	-0.23
1146	1541460.341	734149.8694	0.15	0.00
1147	1541458.493	734150.7044	0.45	0.00
1148	1541456.652	734151.4578	0.34	0.00
1149	1541454.813	734152.1917	0.23	0.00
1150	1541452.972	734152.9545	0.11	0.00
1151	1541451.15	734153.5665	0.00	0.00
1152	1541449.322	734154.2254	0.00	0.00
1153	1541447.51	734154.7592	0.00	0.00
1154	1541445.693	734155.3214	0.00	0.00
1155	1541443.826	734156.2728	0.00	0.00
1156	1541442.03	734156.6628	0.00	0.00
1157	1541440.246	734156.9693	0.00	0.00
1158	1541438.388	734157.8524	0.00	0.00
1159	1541436.584	734158.3124	0.00	0.00
1160	1541434.801	734158.6121	0.00	0.00
1161	1541432.948	734159.4659	0.01	0.00
1162	1541431.105	734160.2319	0.03	0.00
1163	1541429.257	734161.0422	0.00	0.00
1164	1541427.431	734161.6703	0.00	0.00
1165	1541425.667	734161.8078	0.00	0.00
1166	1541423.855	734162.3171	0.00	0.00
1167	1541422.178	734161.7634	0.00	0.00
1168	1541377.289	734114.2485	0.00	0.00
1169	1541377.889	734112.4322	0.00	0.00
1170	1541378.237	734110.6446	0.00	0.00
1171	1541378.538	734108.8587	0.00	0.00
1172	1541378.874	734107.0525	0.00	0.00
1173	1541377.976	734105.2541	0.24	0.00
1174	1541377.429	734103.2337	0.21	0.00
1175	1541378.348	734101.2941	0.10	0.00
1176	1541378.718	734099.5276	0.03	0.00
1177	1541379.094	734097.7825	0.11	0.00
1178	1541379.757	734096.0341	0.20	0.00
1179	1541380.752	734094.2783	0.30	0.00
1180	1541472.763	734092.1505	0.00	-1.62
1181	1541473.718	734093.8611	0.00	-1.68
1182	1541475.099	734095.5617	0.00	-1.68
1183	1541476.744	734097.2564	0.00	-1.71
1184	1541478.224	734098.9554	0.00	-1.44
1185	1541479.177	734100.666	0.00	-1.11
1186	1541479.667	734102.3867	0.00	-0.97
1187	1541480.003	734104.1108	0.00	-1.09
1188	1541480.66	734105.8274	0.00	-2.58
1189	1541479.773	734107.5809	0.00	-4.14
1190	1541478.737	734109.3377	0.00	-5.69
1191	1541479.408	734111.0545	0.00	-6.28
1192	1541480.056	734112.7722	0.00	-6.24
1193	1541478.791	734114.5346	0.00	-6.36
1194	1541478.055	734116.2843	0.00	-6.42
1195	1541477.809	734118.0216	0.00	-6.44
1196	1541477.5	734119.7604	0.00	-6.46
1197	1541476.609	734121.512	0.00	-6.53
1198	1541475.458	734123.27	0.00	-6.13
1199	1541474.401	734125.0275	0.00	-5.63
1200	1541475.282	734126.7387	0.00	-5.43

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
4972	1541551.009	734101.1617	0.00	0.00
4973	1541551.022	734103.1592	0.00	0.00
4974	1541551.039	734105.1516	0.00	-0.28
4975	1541551.059	734107.1449	0.00	-0.59
4976	1541551.078	734109.1391	0.00	-0.71
4977	1541551.099	734111.1341	0.00	-0.73
4978	1541551.119	734113.1298	0.00	-0.75
4979	1541551.14	734115.126	0.00	-0.77
4980	1541551.16	734117.1206	0.00	-0.72
4981	1541549.436	734119.0298	0.00	-1.00
4982	1541547.659	734120.7563	0.00	-1.22
4983	1541547.749	734122.7279	0.00	-1.15
4984	1541546.634	734124.4375	0.00	-1.21
4985	1541547.463	734126.4005	0.00	-0.81
4986	1541548.277	734128.1906	0.00	-0.49
4987	1541547.102	734129.8083	0.00	-0.54
4988	1541545.997	734131.4731	0.00	-0.58
4989	1541546.795	734133.456	0.00	-0.04
4990	1541545.796	734135.1869	0.00	0.00
4991	1541546.577	734137.3452	0.00	0.00
4992	1541545.627	734139.1045	0.00	0.00
4993	1541546.678	734140.8039	0.00	-0.02
4994	1541548.025	734141.9779	0.00	-0.01
4995	1541547.057	734143.7289	0.00	-0.01
4996	1541546.04	734145.4492	0.02	0.00
4997	1541544.823	734147.0368	0.02	0.00
4998	1541543.605	734148.6245	0.02	0.00
4999	1541507.25	734205.0213	0.84	0.00
5000	1541504.779	734205.6535	2.41	0.00
5001	1541502.598	734205.8352	3.92	0.00
5002	1541500.748	734205.506	5.32	0.00
5003	1541498.861	734205.232	5.84	0.00
5004	1541497.773	734206.9098	5.78	0.00
5005	1541495.79	734206.7828	6.22	0.00
5006	1541494.699	734208.4583	6.16	0.00
5007	1541493.606	734210.1325	6.11	0.00
5008	1541491.716	734209.8594	6.56	0.00
5009	1541489.645	734209.8612	7.02	0.00
5010	1541487.302	734210.2775	7.49	0.00
5011	1541486.206	734211.9501	7.47	0.00
5012	1541483.957	734212.2283	7.87	0.00
5013	1541481.752	734212.4558	7.77	0.00
5014	1541480.681	734214.144	7.81	0.00
5015	1541479.635	734215.8474	8.05	0.00
5016	1541477.402	734216.2325	7.74	0.00
5017	1541475.241	734216.5257	5.08	0.00
5018	1541473.12	734216.7614	4.35	0.00
5019	1541471.212	734216.598	2.30	0.00
5020	1541469.241	734216.4235	2.25	0.00
5021	1541467.788	734218.0259	2.51	0.00
5022	1541465.744	734218.758	2.79	0.00
5023	1541463.807	734219.3588	3.30	0.00
5024	1541461.895	734219.9663	3.32	0.00
5025	1541460.01	734220.6302	3.34	0.00
5026	1541458.152	734221.3618	2.99	0.00
5027	1541456.322	734222.1607	0.00	-0.28
5028	1541454.522	734223.0255	0.00	-1.85
5029	1541452.753	734223.9509	0.00	-3.40
5030	1541451.017	734224.9345	0.00	-4.91
5031	1541449.303	734225.9664	0.00	-6.39
5032	1541447.632	734227.0494	0.00	-7.15
5033	1541445.98	734228.1736	0.00	-6.49
5034	1541444.333	734229.3109	0.00	-4.81
5035	1541442.599	734228.2459	0.00	-3.36
5036	1541440.398	734228.5407	0.00	-1.55
5037	1541438.373	734229.2923	0.09	0.00
5038	1541436.39	734229.7701	1.53	0.00
5039	1541434.469	734229.8311	2.62	0.00
5040	1541433.594	734231.6189	2.46	0.00
5041	1541431.727	734231.476	2.70	0.00
5042	1541429.841	734231.3234	2.84	0.00
5043	1541427.981	734231.0815	2.99	0.00
5044	1541426.81	734232.691	2.31	0.00
5045	1541424.884	734232.3574	2.51	0.00
5046	1541422.766	734232.1588	2.68	0.00
5047	1541421.25	734233.4996	2.15	0.00
5048	1541419.546	734234.8636	1.57	0.00
5049	1541417.571	734235.8262	1.56	0.00
5050	1541415.688	734234.8437	2.31	0.00
5051	1541413.897	734233.7379	2.86	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1201	1541474.003	734128.4982	0.00	-5.09
1202	1541474.703	734130.2117	0.00	-4.93
1203	1541473.432	734131.9698	0.00	-4.60
1204	1541474.074	734133.6909	0.00	-4.45
1205	1541472.775	734135.4627	0.00	-4.14
1206	1541473.359	734137.1088	0.00	-4.09
1207	1541472.181	734138.5186	0.00	-3.88
1208	1541472.289	734140.3893	0.00	-3.74
1209	1541471.739	734142.4198	0.00	-3.50
1210	1541471.511	734144.4234	0.00	-3.26
1211	1541471.256	734146.4179	0.00	-2.97
1212	1541469.468	734146.7234	0.00	-2.31
1213	1541467.596	734147.7024	0.00	-1.56
1214	1541465.675	734149.0782	0.00	-0.92
1215	1541463.774	734150.3087	0.00	-0.48
1216	1541461.905	734151.2912	0.00	-0.06
1217	1541460.09	734151.8516	0.32	0.00
1218	1541458.242	734152.6846	0.55	0.00
1219	1541456.401	734153.4405	0.43	0.00
1220	1541454.562	734154.1773	0.29	0.00
1221	1541452.721	734154.9378	0.15	0.00
1222	1541450.9	734155.548	0.01	0.00
1223	1541449.071	734156.2084	0.00	0.00
1224	1541447.259	734156.7426	0.00	0.00
1225	1541445.442	734157.3053	0.00	0.00
1226	1541443.575	734158.2581	0.00	0.00
1227	1541441.779	734158.6475	0.00	0.00
1228	1541439.995	734158.9532	0.00	0.00
1229	1541438.137	734159.8368	0.00	0.00
1230	1541436.333	734160.2973	0.01	0.00
1231	1541434.55	734160.5958	0.02	0.00
1232	1541432.697	734161.4486	0.03	0.00
1233	1541430.855	734162.2156	0.04	0.00
1234	1541429.006	734163.0262	0.00	0.00
1235	1541427.18	734163.6558	0.00	0.00
1236	1541425.416	734163.7933	0.00	0.00
1237	1541423.604	734164.3031	0.00	0.00
1238	1541421.927	734163.7483	0.00	0.00
1239	1541375.302	734114.4823	0.00	0.00
1240	1541375.9	734112.666	0.00	0.00
1241	1541376.25	734110.8781	0.00	0.00
1242	1541376.55	734109.0908	0.00	0.00
1243	1541376.884	734107.2775	0.18	0.00
1244	1541375.985	734105.4319	0.37	0.00
1245	1541375.427	734103.3323	0.35	0.00
1246	1541376.35	734101.348	0.22	0.00
1247	1541376.718	734099.5752	0.07	0.00
1248	1541377.094	734097.829	0.17	0.00
1249	1541377.758	734096.0804	0.27	0.00
1250	1541378.752	734094.3245	0.34	0.00
1251	1541474.763	734092.1042	0.00	-1.62
1252	1541475.717	734093.8149	0.00	-1.64
1253	1541477.099	734095.5155	0.00	-1.63
1254	1541478.744	734097.2102	0.00	-1.54
1255	1541480.223	734098.9092	0.00	-1.12
1256	1541481.176	734100.6197	0.00	-0.85
1257	1541481.665	734102.3404	0.00	-0.79
1258	1541482.002	734104.0645	0.00	-1.05
1259	1541482.66	734105.7811	0.00	-2.51
1260	1541481.772	734107.5345	0.00	-4.06
1261	1541480.736	734109.2913	0.00	-5.61
1262	1541481.408	734111.0081	0.00	-6.11
1263	1541482.056	734112.7257	0.00	-6.06
1264	1541480.79	734114.4881	0.00	-6.17
1265	1541480.054	734116.2377	0.00	-6.24
1266	1541479.807	734117.975	0.00	-6.26
1267	1541479.497	734119.7138	0.00	-6.28
1268	1541478.607	734121.4654	0.00	-6.35
1269	1541477.459	734123.2233	0.00	-6.30
1270	1541476.399	734124.9808	0.00	-5.87
1271	1541477.277	734126.6921	0.00	-5.64
1272	1541476	734128.4514	0.00	-5.22
1273	1541476.701	734130.1657	0.00	-5.04
1274	1541475.426	734131.9273	0.00	-4.76
1275	1541476.076	734133.6418	0.00	-4.60
1276	1541474.764	734135.4003	0.00	-4.35
1277	1541475.344	734137.1331	0.00	-4.26
1278	1541473.947	734138.9378	0.00	-4.00
1279	1541474.73	734140.9025	0.00	-3.92
1280	1541473.464	734142.2212	0.00	-3.74

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5052	1541412.526	734232.4143	3.94	0.00
5053	1541410.623	734232.9984	3.69	0.00
5054	1541409.229	734231.6044	3.36	0.00
5055	1541407.569	734230.2739	2.41	0.00
5056	1541405.852	734228.9544	1.49	0.00
5057	1541404.468	734227.5401	1.05	0.00
5058	1541402.57	734226.267	0.89	0.00
5059	1541340.639	734164.1035	0.00	0.00
5060	1541339.163	734162.9108	0.00	0.00
5061	1541337.652	734161.8629	0.00	0.00
5062	1541336.036	734160.752	0.00	0.00
5063	1541334.289	734159.6176	0.00	0.00
5064	1541332.528	734158.4552	0.00	0.00
5065	1541546.771	734090.439	0.00	0.00
5066	1541547.666	734092.1487	0.00	0.00
5067	1541549.052	734093.8557	0.00	0.00
5068	1541550.753	734095.5956	0.00	0.00
5069	1541552.416	734097.3126	0.00	0.00
5070	1541552.715	734099.423	0.00	0.00
5071	1541552.732	734101.4435	0.00	0.00
5072	1541552.751	734103.4405	0.00	0.00
5073	1541552.77	734105.4356	0.00	-0.25
5074	1541552.79	734107.4314	0.00	-0.54
5075	1541552.811	734109.4279	0.00	-0.55
5076	1541552.832	734111.425	0.00	-0.51
5077	1541552.853	734113.4227	0.00	-0.52
5078	1541552.874	734115.4198	0.00	-0.51
5079	1541552.895	734117.4184	0.00	-0.47
5080	1541551.168	734119.1039	0.00	-0.73
5081	1541549.572	734121.1689	0.00	-0.90
5082	1541549.47	734123.2202	0.00	-0.85
5083	1541548.559	734124.7886	0.00	-0.83
5084	1541549.494	734126.6024	0.00	-0.43
5085	1541550.195	734128.506	0.00	-0.06
5086	1541548.986	734130.1076	0.00	-0.07
5087	1541547.846	734131.7572	0.00	-0.07
5088	1541548.548	734133.8668	0.00	0.00
5089	1541547.542	734135.5942	0.00	0.00
5090	1541548.576	734137.2799	0.00	0.00
5091	1541547.629	734139.0381	0.00	-0.01
5092	1541548.966	734140.2127	0.00	-0.01
5093	1541506.164	734206.7021	0.72	0.00
5094	1541503.693	734207.3319	2.29	0.00
5095	1541501.511	734207.5147	3.77	0.00
5096	1541499.66	734207.1854	5.06	0.00
5097	1541498.571	734208.8634	4.86	0.00
5098	1541496.683	734208.5863	5.73	0.00
5099	1541495.591	734210.2614	5.67	0.00
5100	1541494.497	734211.9353	5.60	0.00
5101	1541492.512	734211.8055	6.06	0.00
5102	1541490.621	734211.5309	6.51	0.00
5103	1541488.549	734211.5328	6.99	0.00
5104	1541487.453	734213.204	6.95	0.00
5105	1541485.113	734213.6248	7.44	0.00
5106	1541482.873	734213.9082	7.94	0.00
5107	1541481.807	734215.5999	7.94	0.00
5108	1541480.77	734217.309	7.68	0.00
5109	1541478.62	734217.5695	8.37	0.00
5110	1541476.408	734217.9679	7.00	0.00
5111	1541474.255	734218.2662	4.55	0.00
5112	1541472.087	734218.5093	2.88	0.00
5113	1541470.106	734218.2349	2.54	0.00
5114	1541469.003	734219.6079	3.28	0.00
5115	1541467.247	734220.1078	3.30	0.00
5116	1541465.36	734220.6949	3.32	0.00
5117	1541463.445	734221.2677	3.34	0.00
5118	1541461.549	734221.8961	3.36	0.00
5119	1541459.677	734222.5926	3.38	0.00
5120	1541457.833	734223.3606	2.84	0.00
5121	1541456.02	734224.1978	0.00	-0.56
5122	1541454.239	734225.091	0.00	-2.11
5123	1541452.488	734226.0574	0.00	-3.63
5124	1541450.764	734227.0777	0.00	-5.14
5125	1541449.085	734228.1525	0.00	-6.30
5126	1541447.428	734229.2652	0.00	-6.81
5127	1541445.792	734230.4141	0.00	-6.12
5128	1541444.189	734231.5967	0.00	-4.72
5129	1541442.788	734230.5156	0.00	-3.13
5130	1541441.346	734229.7763	0.00	-2.03
5131	1541439.708	734230.5253	0.00	-0.79

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1281	1541473.324	734144.0687	0.00	-3.63
1282	1541473.049	734146.0392	0.00	-3.48
1283	1541472.803	734148.0261	0.00	-3.33
1284	1541471.005	734148.4058	0.00	-2.72
1285	1541469.216	734148.7142	0.00	-2.05
1286	1541467.344	734149.689	0.00	-1.29
1287	1541465.424	734151.0643	0.00	-0.74
1288	1541463.523	734152.2908	0.00	-0.31
1289	1541461.654	734153.2739	0.10	0.00
1290	1541459.839	734153.8338	0.47	0.00
1291	1541457.991	734154.6649	0.60	0.00
1292	1541456.15	734155.4231	0.46	0.00
1293	1541454.311	734156.1629	0.32	0.00
1294	1541452.47	734156.921	0.19	0.00
1295	1541450.649	734157.5294	0.06	0.00
1296	1541448.82	734158.1914	0.00	0.00
1297	1541447.008	734158.7261	0.00	0.00
1298	1541445.191	734159.2891	0.00	0.00
1299	1541443.324	734160.2434	0.00	0.00
1300	1541441.528	734160.6321	0.00	0.00
1301	1541439.744	734160.9371	0.01	0.00
1302	1541437.886	734161.8211	0.02	0.00
1303	1541436.082	734162.2821	0.03	0.00
1304	1541434.299	734162.5795	0.04	0.00
1305	1541432.446	734163.4314	0.05	0.00
1306	1541430.604	734164.1993	0.00	0.00
1307	1541428.756	734165.0102	0.00	0.00
1308	1541426.929	734165.642	0.00	0.00
1309	1541425.165	734165.7785	0.00	0.00
1310	1541423.353	734166.2889	0.00	0.00
1311	1541421.677	734165.7333	0.00	0.00
1312	1541373.315	734114.7161	0.00	0.00
1313	1541373.913	734112.9003	0.00	0.00
1314	1541374.262	734111.1112	0.00	0.00
1315	1541374.563	734109.3229	0.01	0.00
1316	1541374.895	734107.5021	0.39	0.00
1317	1541373.988	734105.6108	0.50	0.00
1318	1541373.425	734103.4293	0.49	0.00
1319	1541374.352	734101.4012	0.33	0.00
1320	1541374.719	734099.6225	0.16	0.00
1321	1541375.094	734097.8755	0.08	0.00
1322	1541375.759	734096.1267	0.22	0.00
1323	1541376.752	734094.3708	0.40	0.00
1324	1541476.763	734092.0579	0.00	-1.60
1325	1541477.717	734093.7686	0.00	-1.55
1326	1541479.099	734095.4692	0.00	-1.51
1327	1541480.745	734097.1639	0.00	-1.22
1328	1541482.223	734098.8629	0.00	-0.80
1329	1541483.175	734100.5734	0.00	-0.63
1330	1541483.663	734102.2942	0.00	-0.62
1331	1541484.001	734104.0182	0.00	-1.02
1332	1541484.66	734105.7347	0.00	-2.44
1333	1541483.772	734107.4881	0.00	-3.98
1334	1541482.735	734109.2449	0.00	-5.52
1335	1541483.408	734110.9616	0.00	-6.17
1336	1541484.057	734112.6791	0.00	-6.37
1337	1541482.789	734114.4416	0.00	-6.25
1338	1541482.053	734116.1912	0.00	-6.22
1339	1541481.805	734117.9285	0.00	-6.26
1340	1541481.493	734119.6673	0.00	-6.29
1341	1541480.606	734121.4187	0.00	-6.22
1342	1541479.46	734123.1766	0.00	-6.26
1343	1541478.397	734124.9341	0.00	-5.99
1344	1541479.273	734126.6454	0.00	-5.71
1345	1541477.998	734128.4048	0.00	-5.40
1346	1541478.699	734130.1187	0.00	-5.19
1347	1541477.423	734131.8799	0.00	-4.84
1348	1541478.077	734133.5963	0.00	-4.79
1349	1541476.756	734135.3611	0.00	-4.53
1350	1541477.348	734137.0834	0.00	-4.47
1351	1541475.915	734138.8727	0.00	-4.19
1352	1541476.681	734140.3748	0.00	-4.14
1353	1541476.856	734142.0505	0.00	-4.10
1354	1541475.309	734143.2545	0.00	-3.91
1355	1541474.893	734145.2818	0.00	-3.82
1356	1541474.607	734147.2691	0.00	-3.64
1357	1541474.382	734149.3081	0.00	-3.54
1358	1541472.55	734150.0099	0.00	-3.17
1359	1541470.752	734150.3947	0.00	-2.49
1360	1541468.964	734150.7053	0.00	-1.81
5132	1541437.761	734231.417	0.48	0.00
5133	1541435.57	734231.5455	1.77	0.00
5134	1541434.577	734233.2966	1.27	0.00
5135	1541432.588	734233.3428	1.70	0.00
5136	1541430.676	734233.1732	1.91	0.00
5137	1541428.731	734232.9781	2.10	0.00
5138	1541427.485	734234.5336	1.14	0.00
5139	1541425.497	734234.1875	1.49	0.00
5140	1541423.501	734233.7826	1.90	0.00
5141	1541421.986	734235.042	1.07	0.00
5142	1541420.664	734236.244	0.37	0.00
5143	1541418.982	734236.9746	0.40	0.00
5144	1541417.218	734237.8636	0.65	0.00
5145	1541415.734	734236.6584	1.77	0.00
5146	1541413.832	734235.5647	2.48	0.00
5147	1541412.01	734234.3732	2.88	0.00
5148	1541410.101	734234.9407	2.89	0.00
5149	1541408.707	734233.544	3.49	0.00
5150	1541407.308	734232.1409	3.23	0.00
5151	1541405.646	734230.8074	2.31	0.00
5152	1541403.926	734229.4871	1.47	0.00
5153	1541402.54	734228.0728	1.11	0.00
5154	1541400.642	734226.7995	0.94	0.00
5155	1541340.187	734166.0525	0.00	0.00
5156	1541338.764	734164.8572	0.00	0.00
5157	1541337.338	734163.8016	0.00	0.00
5158	1541335.933	734162.7334	0.00	0.00
5159	1541334.292	734161.615	0.00	0.00
5160	1541332.552	734160.4558	0.00	0.00
5161	1541548.771	734090.3927	0.00	0.00
5162	1541549.654	734092.0989	0.00	0.00
5163	1541550.998	734093.7822	0.00	0.00
5164	1541552.702	734095.2721	0.00	0.00
5165	1541554.389	734096.3777	0.00	0.00
5166	1541554.397	734098.3528	0.00	0.00
5167	1541554.447	734100.3681	0.00	0.00
5168	1541554.467	734102.3642	0.00	0.00
5169	1541554.488	734104.3594	0.00	-0.01
5170	1541554.508	734106.3555	0.00	-0.31
5171	1541554.529	734108.3523	0.00	-0.34
5172	1541554.55	734110.3497	0.00	-0.32
5173	1541554.572	734112.3476	0.00	-0.31
5174	1541554.593	734114.3457	0.00	-0.29
5175	1541554.614	734116.3439	0.00	-0.25
5176	1541554.641	734118.3405	0.00	-0.21
5177	1541552.944	734119.3883	0.00	-0.44
5178	1541551.388	734120.8973	0.00	-0.63
5179	1541551.26	734122.9546	0.00	-0.56
5180	1541550.597	734124.9587	0.00	-0.46
5181	1541551.437	734126.9193	0.00	-0.05
5182	1541552.024	734128.9851	0.00	-0.04
5183	1541550.775	734130.5359	0.00	-0.02
5184	1541549.602	734132.1779	0.00	-0.01
5185	1541550.583	734133.852	0.00	0.00
5186	1541549.55	734135.5373	0.00	0.00
5187	1541550.855	734136.6851	0.00	0.00
5188	1541549.908	734138.4476	0.00	-0.01
5189	1541505.077	734208.3818	0.63	0.00
5190	1541502.607	734209.0104	2.18	0.00
5191	1541500.423	734209.1933	3.60	0.00
5192	1541499.332	734210.87	3.48	0.00
5193	1541497.479	734210.54	4.69	0.00
5194	1541496.385	734212.2152	4.54	0.00
5195	1541495.289	734213.8894	4.40	0.00
5196	1541493.402	734213.608	5.42	0.00
5197	1541491.415	734213.4771	6.00	0.00
5198	1541489.525	734213.2012	6.47	0.00
5199	1541488.428	734214.8712	6.43	0.00
5200	1541486.36	734214.8773	6.91	0.00
5201	1541484.03	734215.3065	7.42	0.00
5202	1541482.969	734217.0019	7.42	0.00
5203	1541481.94	734218.717	7.11	0.00
5204	1541479.766	734219.0387	7.36	0.00
5205	1541477.635	734219.3104	7.20	0.00
5206	1541475.429	734219.7212	5.75	0.00
5207	1541473.243	734219.9788	4.23	0.00
5208	1541470.933	734220.3481	3.28	0.00
5209	1541469.07	734221.4276	3.31	0.00
5210	1541467.132	734221.9942	3.33	0.00
5211	1541465.201	734222.5357	3.35	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1361	1541467.093	734151.6756	0.00	-1.05
1362	1541465.172	734153.0505	0.00	-0.58
1363	1541463.273	734154.2728	0.00	-0.18
1364	1541461.403	734155.2566	0.19	0.00
1365	1541459.589	734155.816	0.54	0.00
1366	1541457.741	734156.6451	0.64	0.00
1367	1541455.899	734157.4056	0.51	0.00
1368	1541454.059	734158.1484	0.38	0.00
1369	1541452.219	734158.9043	0.24	0.00
1370	1541450.398	734159.5109	0.11	0.00
1371	1541448.57	734160.1743	0.00	0.00
1372	1541446.757	734160.7095	0.00	0.00
1373	1541444.94	734161.2729	0.00	0.00
1374	1541443.073	734162.2287	0.01	0.00
1375	1541441.277	734162.6168	0.02	0.00
1376	1541439.493	734162.921	0.03	0.00
1377	1541437.635	734163.8054	0.04	0.00
1378	1541435.831	734164.2669	0.05	0.00
1379	1541434.048	734164.5632	0.06	0.00
1380	1541432.196	734165.4141	0.04	0.00
1381	1541430.353	734166.1832	0.00	0.00
1382	1541428.505	734166.994	0.00	0.00
1383	1541426.678	734167.6323	0.00	0.00
1384	1541424.916	734167.761	0.00	0.00
1385	1541423.105	734168.2739	0.00	0.00
1386	1541421.426	734167.7182	0.00	0.00
1387	1541371.328	734114.9499	0.00	0.00
1388	1541371.925	734113.1342	0.00	0.00
1389	1541372.276	734111.3466	0.00	0.00
1390	1541372.573	734109.5532	0.25	0.00
1391	1541372.907	734107.7267	0.60	0.00
1392	1541371.968	734105.7966	0.64	0.00
1393	1541371.418	734103.5505	0.64	0.00
1394	1541372.354	734101.457	0.41	0.00
1395	1541372.719	734099.6703	0.25	0.00
1396	1541373.095	734097.922	0.14	0.00
1397	1541373.76	734096.173	0.12	0.00
1398	1541374.751	734094.417	0.29	0.00
1399	1541478.763	734092.0117	0.00	-1.46
1400	1541479.716	734093.7224	0.00	-1.42
1401	1541481.099	734095.423	0.00	-1.35
1402	1541482.745	734097.1176	0.00	-0.90
1403	1541484.222	734098.8166	0.00	-0.54
1404	1541485.174	734100.5272	0.00	-0.46
1405	1541485.661	734102.2479	0.00	-0.45
1406	1541485.999	734103.9719	0.00	-1.00
1407	1541486.66	734105.6883	0.00	-2.37
1408	1541485.771	734107.4417	0.00	-3.89
1409	1541484.734	734109.1985	0.00	-5.44
1410	1541485.408	734110.9151	0.00	-6.16
1411	1541486.057	734112.6326	0.00	-6.65
1412	1541484.788	734114.3951	0.00	-6.57
1413	1541484.051	734116.1447	0.00	-6.54
1414	1541483.803	734117.8819	0.00	-6.58
1415	1541483.49	734119.6207	0.00	-6.61
1416	1541482.604	734121.3721	0.00	-6.55
1417	1541481.46	734123.1299	0.00	-6.44
1418	1541480.394	734124.8874	0.00	-6.09
1419	1541481.268	734126.5987	0.00	-5.78
1420	1541479.995	734128.358	0.00	-5.45
1421	1541480.697	734130.0719	0.00	-5.22
1422	1541479.42	734131.8333	0.00	-5.02
1423	1541480.078	734133.5493	0.00	-4.98
1424	1541478.756	734135.3136	0.00	-4.74
1425	1541479.362	734137.0306	0.00	-4.67
1426	1541477.963	734138.7753	0.00	-4.39
1427	1541478.52	734140.5294	0.00	-4.31
1428	1541478.951	734142.2387	0.00	-4.22
1429	1541477.529	734143.7699	0.00	-4.08
1430	1541476.636	734145.1461	0.00	-3.97
1431	1541476.371	734147.0245	0.00	-3.92
1432	1541475.987	734148.7836	0.00	-3.83
1433	1541476.308	734150.7219	0.00	-3.88
1434	1541474.184	734151.2367	0.00	-3.46
1435	1541472.305	734151.9859	0.00	-2.98
1436	1541470.503	734152.383	0.00	-2.28
1437	1541468.712	734152.6954	0.00	-1.59
1438	1541466.841	734153.6622	0.00	-0.87
1439	1541464.921	734155.0366	0.00	-0.48
1440	1541463.022	734156.2549	0.00	-0.11
5212	1541463.288	734223.1202	3.37	0.00
5213	1541461.399	734223.7726	3.39	0.00
5214	1541459.538	734224.4985	3.41	0.00
5215	1541457.708	734225.2982	2.66	0.00
5216	1541455.911	734226.1695	0.00	-0.67
5217	1541454.145	734227.0749	0.00	-2.20
5218	1541452.389	734228.0845	0.00	-3.73
5219	1541450.714	734229.1483	0.00	-5.20
5220	1541449.046	734230.246	0.00	-6.18
5221	1541447.403	734231.3843	0.00	-6.66
5222	1541445.787	734232.5558	0.00	-5.87
5223	1541444.184	734233.7486	0.00	-5.16
5224	1541442.583	734232.7993	0.00	-3.55
5225	1541441.187	734231.7157	0.00	-2.08
5226	1541439.559	734232.7611	0.00	-1.27
5227	1541438.085	734233.6619	0.00	-0.75
5228	1541436.511	734233.181	0.44	0.00
5229	1541435.416	734234.811	0.00	-0.24
5230	1541433.487	734234.978	0.18	0.00
5231	1541431.467	734235.0021	0.38	0.00
5232	1541429.496	734234.7833	0.72	0.00
5233	1541428.193	734236.2948	0.00	-0.61
5234	1541426.111	734235.9753	0.00	-0.22
5235	1541424.053	734235.5577	0.36	0.00
5236	1541422.52	734236.7985	0.00	-0.71
5237	1541420.837	734237.9117	0.00	-1.28
5238	1541419.082	734238.8507	0.00	-1.20
5239	1541417.281	734239.7104	0.00	-0.78
5240	1541415.379	734238.6265	0.87	0.00
5241	1541413.861	734237.3612	2.08	0.00
5242	1541411.938	734236.186	2.61	0.00
5243	1541410.028	734236.7531	2.35	0.00
5244	1541408.184	734235.4833	2.57	0.00
5245	1541406.785	734234.0802	3.84	0.00
5246	1541405.385	734232.6747	3.16	0.00
5247	1541403.72	734231.3404	2.36	0.00
5248	1541401.999	734230.0197	1.62	0.00
5249	1541400.612	734228.6055	1.16	0.00
5250	1541398.713	734227.332	1.00	0.00
5251	1541339.735	734168.0014	0.00	0.00
5252	1541338.086	734166.831	0.00	0.00
5253	1541337.106	734165.5384	0.00	0.00
5254	1541335.815	734164.7077	0.00	0.00
5255	1541334.29	734163.6124	0.00	0.00
5256	1541332.576	734162.4564	0.00	0.00
5257	1541550.772	734090.3464	0.00	0.00
5258	1541551.615	734092.0141	0.00	0.00
5259	1541552.739	734093.5646	0.00	0.00
5260	1541554.465	734094.1905	0.00	0.00
5261	1541556.111	734095.8935	0.00	0.00
5262	1541556.147	734097.8769	0.00	0.00
5263	1541556.166	734099.863	0.00	0.00
5264	1541556.191	734101.86	0.00	0.00
5265	1541556.212	734103.8561	0.00	0.00
5266	1541556.233	734105.8529	0.00	-0.16
5267	1541556.255	734107.8502	0.00	-0.15
5268	1541556.276	734109.848	0.00	-0.11
5269	1541556.297	734111.8461	0.00	-0.09
5270	1541556.319	734113.8443	0.00	-0.05
5271	1541556.34	734115.8427	0.00	-0.01
5272	1541556.363	734117.8407	0.01	0.00
5273	1541556.384	734119.8398	0.02	0.00
5274	1541554.66	734120.3411	0.00	-0.14
5275	1541552.95	734121.4018	0.00	-0.35
5276	1541553.104	734123.2356	0.00	-0.22
5277	1541552.609	734125.1562	0.00	-0.09
5278	1541553.24	734127.4237	0.00	-0.04
5279	1541553.924	734129.3893	0.00	-0.06
5280	1541552.673	734130.9273	0.00	-0.03
5281	1541551.407	734132.2485	0.00	-0.01
5282	1541552.943	734133.2743	0.00	-0.01
5283	1541551.884	734134.9694	0.00	-0.01
5284	1541503.99	734210.0615	0.52	0.00
5285	1541501.518	734210.6881	2.06	0.00
5286	1541500.427	734212.3632	1.94	0.00
5287	1541498.239	734212.5452	3.38	0.00
5288	1541497.144	734214.2196	3.30	0.00
5289	1541496.048	734215.893	3.23	0.00
5290	1541494.192	734215.5622	4.28	0.00
5291	1541492.304	734215.2791	5.25	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1441	1541461.152	734157.2392	0.26	0.00
1442	1541459.338	734157.7982	0.61	0.00
1443	1541457.49	734158.6253	0.69	0.00
1444	1541455.649	734159.3882	0.55	0.00
1445	1541453.808	734160.1339	0.42	0.00
1446	1541451.968	734160.8875	0.30	0.00
1447	1541450.148	734161.4923	0.18	0.00
1448	1541448.319	734162.1572	0.07	0.00
1449	1541446.506	734162.6928	0.01	0.00
1450	1541444.689	734163.2567	0.02	0.00
1451	1541442.821	734164.2139	0.03	0.00
1452	1541441.026	734164.6014	0.04	0.00
1453	1541439.242	734164.9049	0.05	0.00
1454	1541437.385	734165.7896	0.06	0.00
1455	1541435.58	734166.2517	0.07	0.00
1456	1541433.798	734166.5468	0.08	0.00
1457	1541431.945	734167.3969	0.00	0.00
1458	1541430.102	734168.1673	0.00	0.00
1459	1541428.255	734168.9777	0.00	0.00
1460	1541426.426	734169.6482	0.00	0.00
1461	1541424.687	734169.7289	0.00	0.00
1462	1541422.821	734170.2418	0.00	0.00
1463	1541421.175	734169.7032	0.00	0.00
1464	1541369.341	734115.1837	0.00	0.00
1465	1541369.937	734113.3686	0.00	0.00
1466	1541370.289	734111.5812	0.14	0.00
1467	1541370.597	734109.7946	0.49	0.00
1468	1541370.907	734107.9308	0.73	0.00
1469	1541369.761	734105.8717	0.78	0.00
1470	1541369.378	734103.5028	0.69	0.00
1471	1541370.37	734101.5075	0.48	0.00
1472	1541370.721	734099.7169	0.35	0.00
1473	1541371.095	734097.9684	0.24	0.00
1474	1541371.761	734096.2193	0.11	0.00
1475	1541372.751	734094.4633	0.19	0.00
1476	1541480.764	734091.9654	0.00	-1.32
1477	1541481.715	734093.6762	0.00	-1.30
1478	1541483.099	734095.3767	0.00	-1.03
1479	1541484.745	734097.0713	0.00	-0.58
1480	1541486.221	734098.7704	0.00	-0.34
1481	1541487.173	734100.4809	0.00	-0.29
1482	1541487.659	734102.2016	0.00	-0.28
1483	1541487.998	734103.9256	0.00	-1.02
1484	1541488.66	734105.6419	0.00	-2.31
1485	1541487.771	734107.3953	0.00	-3.80
1486	1541486.733	734109.152	0.00	-5.35
1487	1541487.407	734110.8686	0.00	-6.01
1488	1541488.058	734112.586	0.00	-6.50
1489	1541486.787	734114.3485	0.00	-6.90
1490	1541486.05	734116.0981	0.00	-6.86
1491	1541485.801	734117.8353	0.00	-6.90
1492	1541485.486	734119.5741	0.00	-6.93
1493	1541484.602	734121.3254	0.00	-6.87
1494	1541483.461	734123.0831	0.00	-6.64
1495	1541482.392	734124.8407	0.00	-6.17
1496	1541483.263	734126.5519	0.00	-5.80
1497	1541481.992	734128.3112	0.00	-5.49
1498	1541482.694	734130.025	0.00	-5.39
1499	1541481.418	734131.7864	0.00	-5.21
1500	1541482.08	734133.5021	0.00	-5.16
1501	1541480.759	734135.2657	0.00	-4.93
1502	1541481.366	734136.9874	0.00	-4.88
1503	1541479.947	734138.7559	0.00	-4.60
1504	1541480.49	734140.4789	0.00	-4.50
1505	1541480.957	734142.1942	0.00	-4.41
1506	1541479.509	734143.9115	0.00	-4.28
1507	1541478.408	734145.4474	0.00	-4.18
1508	1541477.796	734146.8646	0.00	-4.15
1509	1541477.836	734148.8491	0.00	-4.08
1510	1541478.785	734150.468	0.00	-4.23
1511	1541477.793	734152.2028	0.00	-4.14
1512	1541475.697	734152.721	0.00	-3.80
1513	1541473.876	734153.2161	0.00	-3.35
1514	1541472.052	734153.9743	0.00	-2.79
1515	1541470.247	734154.3673	0.00	-2.09
1516	1541468.461	734154.6875	0.00	-1.42
1517	1541466.59	734155.6487	0.00	-0.79
1518	1541464.669	734157.023	0.00	-0.42
1519	1541462.771	734158.2369	0.00	-0.05
1520	1541460.902	734159.2219	0.31	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5292	1541490.317	734215.1473	5.94	0.00
5293	1541489.221	734216.8183	5.88	0.00
5294	1541487.337	734216.5448	6.39	0.00
5295	1541485.279	734216.5585	6.90	0.00
5296	1541484.222	734218.2552	6.85	0.00
5297	1541483.201	734219.9738	6.53	0.00
5298	1541480.949	734220.454	6.59	0.00
5299	1541478.796	734220.7865	6.50	0.00
5300	1541476.675	734221.0589	6.04	0.00
5301	1541474.451	734221.4638	4.73	0.00
5302	1541472.415	734221.6017	3.46	0.00
5303	1541470.785	734222.7278	3.32	0.00
5304	1541468.709	734223.3589	3.35	0.00
5305	1541466.754	734223.887	3.36	0.00
5306	1541464.827	734224.4372	3.39	0.00
5307	1541462.923	734225.0518	3.41	0.00
5308	1541461.047	734225.7416	3.43	0.00
5309	1541459.201	734226.5086	3.45	0.00
5310	1541457.392	734227.3523	1.84	0.00
5311	1541455.634	734228.27	0.00	-0.92
5312	1541453.956	734228.943	0.00	-2.37
5313	1541452.521	734230.0604	0.00	-3.63
5314	1541450.842	734231.1014	0.00	-5.11
5315	1541449.19	734232.2264	0.00	-5.91
5316	1541447.558	734233.3884	0.00	-6.35
5317	1541445.957	734234.5772	0.00	-5.54
5318	1541444.361	734235.7805	0.00	-5.20
5319	1541442.591	734234.9564	0.00	-4.50
5320	1541440.961	734234.0235	0.00	-2.88
5321	1541439.201	734235.2561	0.00	-2.40
5322	1541437.008	734235.1559	0.00	-1.17
5323	1541435.587	734236.5416	0.00	-1.62
5324	1541434.215	734236.2993	0.00	-1.04
5325	1541432.317	734236.6587	0.00	-1.10
5326	1541430.236	734236.5872	0.00	-0.96
5327	1541428.933	734238.0774	0.00	-2.28
5328	1541426.775	734237.6834	0.00	-1.88
5329	1541424.629	734237.2985	0.00	-1.45
5330	1541423.028	734238.4927	0.00	-2.46
5331	1541421.337	734239.5615	0.00	-2.89
5332	1541419.561	734240.5069	0.00	-2.78
5333	1541417.65	734241.517	0.00	-2.48
5334	1541415.412	734240.4489	0.00	-0.35
5335	1541413.504	734239.3109	1.08	0.00
5336	1541411.966	734237.9757	1.87	0.00
5337	1541410.056	734238.5418	1.52	0.00
5338	1541408.109	734237.2972	1.70	0.00
5339	1541406.263	734236.019	2.37	0.00
5340	1541404.863	734234.6141	4.02	0.00
5341	1541403.461	734233.2077	3.30	0.00
5342	1541401.794	734231.873	2.57	0.00
5343	1541400.071	734230.5522	1.89	0.00
5344	1541398.683	734229.1382	1.24	0.00
5345	1541396.785	734227.8646	1.08	0.00
5346	1541339.282	734169.9503	0.00	0.00
5347	1541338.025	734168.6776	0.00	0.00
5348	1541336.29	734168.2874	0.00	0.00
5349	1541335.999	734166.587	0.00	0.00
5350	1541334.307	734165.6276	0.00	0.00
5351	1541332.6	734164.457	0.00	0.00
5352	1541552.772	734090.3002	0.00	0.00
5353	1541553.597	734092.0452	0.00	0.00
5354	1541555.242	734092.0942	0.00	0.00
5355	1541556.211	734093.968	0.00	0.00
5356	1541557.85	734095.162	0.00	0.00
5357	1541557.871	734097.1626	0.00	0.00
5358	1541557.893	734099.1633	0.00	0.00
5359	1541557.914	734101.1639	0.00	0.00
5360	1541557.936	734103.1646	0.00	0.00
5361	1541557.957	734105.1652	0.00	0.00
5362	1541557.979	734107.1659	0.00	0.00
5363	1541558	734109.1665	0.00	0.00
5364	1541558.022	734111.1672	0.00	0.00
5365	1541558.043	734113.1678	0.00	0.00
5366	1541558.065	734115.1685	0.00	0.00
5367	1541558.086	734117.1691	0.00	0.00
5368	1541558.108	734119.1698	0.01	0.00
5369	1541558.129	734121.1704	0.01	0.00
5370	1541556.41	734121.8434	0.06	0.00
5371	1541554.713	734122.3308	0.00	-0.01

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1521	1541459.087	734159.7804	0.66	0.00
1522	1541457.24	734160.6055	0.72	0.00
1523	1541455.398	734161.3707	0.60	0.00
1524	1541453.557	734162.1194	0.49	0.00
1525	1541451.717	734162.8706	0.37	0.00
1526	1541449.897	734163.4736	0.26	0.00
1527	1541448.068	734164.14	0.13	0.00
1528	1541446.255	734164.6762	0.03	0.00
1529	1541444.438	734165.2405	0.04	0.00
1530	1541442.57	734166.1991	0.05	0.00
1531	1541440.775	734166.586	0.06	0.00
1532	1541438.992	734166.8887	0.07	0.00
1533	1541437.134	734167.7739	0.08	0.00
1534	1541435.329	734168.2365	0.09	0.00
1535	1541433.547	734168.5305	0.04	0.00
1536	1541431.694	734169.3795	0.00	0.00
1537	1541429.846	734170.1527	0.00	0.00
1538	1541427.985	734170.9677	0.00	0.00
1539	1541426.027	734171.8054	0.00	0.00
1540	1541424.23	734171.4592	0.00	0.00
1541	1541422.567	734172.2648	0.00	0.00
1542	1541420.924	734171.6881	0.00	0.00
1543	1541367.354	734115.4175	0.00	0.00
1544	1541367.95	734113.6025	0.01	0.00
1545	1541368.303	734111.8155	0.37	0.00
1546	1541368.613	734110.0288	0.73	0.00
1547	1541368.995	734108.2104	0.84	0.00
1548	1541367.757	734106.832	0.91	0.00
1549	1541367.258	734104.9841	0.86	0.00
1550	1541367.529	734103.0518	0.66	0.00
1551	1541368.379	734101.49	0.50	0.00
1552	1541368.724	734099.7565	0.40	0.00
1553	1541369.096	734098.0137	0.33	0.00
1554	1541369.762	734096.2654	0.21	0.00
1555	1541370.751	734094.5096	0.10	0.00
1556	1541482.764	734091.9192	0.00	-1.19
1557	1541483.714	734093.6299	0.00	-1.11
1558	1541485.099	734095.3304	0.00	-0.71
1559	1541486.746	734097.0251	0.00	-0.28
1560	1541488.221	734098.7241	0.00	-0.17
1561	1541489.172	734100.4346	0.00	-0.12
1562	1541489.657	734102.1553	0.00	-0.29
1563	1541489.997	734103.8792	0.00	-1.19
1564	1541490.66	734105.5955	0.00	-2.29
1565	1541489.77	734107.3489	0.00	-3.73
1566	1541488.732	734109.1056	0.00	-5.26
1567	1541489.407	734110.8221	0.00	-5.93
1568	1541490.058	734112.5395	0.00	-6.45
1569	1541488.786	734114.302	0.00	-6.98
1570	1541488.048	734116.0515	0.00	-7.18
1571	1541487.799	734117.7886	0.00	-7.22
1572	1541487.483	734119.5274	0.00	-7.25
1573	1541486.6	734121.2786	0.00	-7.19
1574	1541485.462	734123.0363	0.00	-6.74
1575	1541484.39	734124.7939	0.00	-6.25
1576	1541485.258	734126.5051	0.00	-5.82
1577	1541483.99	734128.2643	0.00	-5.56
1578	1541484.692	734129.9781	0.00	-5.56
1579	1541483.415	734131.7394	0.00	-5.39
1580	1541484.081	734133.4551	0.00	-5.35
1581	1541482.76	734135.2192	0.00	-5.12
1582	1541483.372	734136.94	0.00	-5.07
1583	1541481.95	734138.7087	0.00	-4.80
1584	1541482.485	734140.4324	0.00	-4.72
1585	1541482.953	734142.1525	0.00	-4.61
1586	1541481.491	734143.8944	0.00	-4.46
1587	1541480.215	734145.5665	0.00	-4.40
1588	1541479.215	734147.2099	0.00	-4.34
1589	1541480.022	734148.7601	0.00	-4.30
1590	1541481.117	734150.1909	0.00	-4.46
1591	1541480.062	734151.869	0.00	-4.42
1592	1541479.077	734153.5815	0.00	-4.36
1593	1541477.031	734153.9645	0.00	-4.08
1594	1541475.244	734154.6819	0.00	-3.71
1595	1541473.643	734155.2117	0.00	-3.26
1596	1541471.77	734155.9412	0.00	-2.63
1597	1541469.999	734156.3642	0.00	-1.97
1598	1541468.208	734156.6774	0.00	-1.30
1599	1541466.339	734157.6351	0.00	-0.74
1600	1541464.418	734159.0102	0.00	-0.36

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5372	1541554.651	734124.333	0.03	0.00
5373	1541554.423	734126.0776	0.00	-0.03
5374	1541555.194	734127.8538	0.00	-0.12
5375	1541555.505	734130.2007	0.00	-0.03
5376	1541554.224	734131.7373	0.00	-0.03
5377	1541502.903	734211.7413	0.41	0.00
5378	1541501.809	734213.4162	0.30	0.00
5379	1541499.333	734214.0372	1.82	0.00
5380	1541498.238	734215.7107	1.70	0.00
5381	1541497.142	734217.3832	1.58	0.00
5382	1541494.949	734217.5643	3.16	0.00
5383	1541493.092	734217.233	4.18	0.00
5384	1541491.204	734216.9488	5.12	0.00
5385	1541490.109	734218.6209	5.00	0.00
5386	1541488.135	734218.4963	5.87	0.00
5387	1541486.263	734218.2292	6.41	0.00
5388	1541485.22	734219.9334	6.20	0.00
5389	1541484.219	734221.6628	5.87	0.00
5390	1541482.219	734221.716	6.02	0.00
5391	1541479.985	734222.215	5.61	0.00
5392	1541477.837	734222.5466	5.52	0.00
5393	1541475.675	734222.7843	4.89	0.00
5394	1541473.254	734223.2921	3.53	0.00
5395	1541471.697	734224.4859	3.29	0.00
5396	1541469.877	734224.8315	3.36	0.00
5397	1541467.957	734225.3515	3.39	0.00
5398	1541466.027	734225.8727	3.40	0.00
5399	1541464.116	734226.4595	3.42	0.00
5400	1541462.231	734227.1235	3.44	0.00
5401	1541460.377	734227.8678	3.47	0.00
5402	1541458.551	734228.6934	3.49	0.00
5403	1541456.745	734229.6056	0.11	0.00
5404	1541454.776	734230.5502	0.00	-1.67
5405	1541452.962	734231.8005	0.00	-3.26
5406	1541451.253	734232.8736	0.00	-4.76
5407	1541449.584	734234.0249	0.00	-5.54
5408	1541447.988	734235.2112	0.00	-5.74
5409	1541446.382	734236.4079	0.00	-5.20
5410	1541444.799	734237.6204	0.00	-5.20
5411	1541442.775	734236.9976	0.00	-5.20
5412	1541440.999	734236.1677	0.00	-4.07
5413	1541439.458	734237.4026	0.00	-3.98
5414	1541437.618	734236.7679	0.00	-2.58
5415	1541436.005	734238.0632	0.00	-2.95
5416	1541433.651	734238.0511	0.00	-2.42
5417	1541431.237	734238.3715	0.00	-2.56
5418	1541429.912	734240.1373	0.00	-4.09
5419	1541427.478	734239.3598	0.00	-3.41
5420	1541425.248	734238.9667	0.00	-3.06
5421	1541423.614	734240.1264	0.00	-3.99
5422	1541421.918	734241.1694	0.00	-4.38
5423	1541420.178	734242.1045	0.00	-4.48
5424	1541418.68	734243.0503	0.00	-4.22
5425	1541416.864	734243.5322	0.00	-3.15
5426	1541415.536	734242.2253	0.00	-1.46
5427	1541413.391	734241.2548	0.12	0.00
5428	1541411.617	734239.9034	1.20	0.00
5429	1541409.681	734240.4401	0.96	0.00
5430	1541408.131	734239.0838	1.30	0.00
5431	1541406.187	734237.8334	2.13	0.00
5432	1541404.341	734236.5526	3.05	0.00
5433	1541402.939	734235.1471	4.17	0.00
5434	1541401.536	734233.7403	3.55	0.00
5435	1541399.867	734232.4055	2.86	0.00
5436	1541398.143	734231.0848	2.26	0.00
5437	1541396.754	734229.6709	1.59	0.00
5438	1541394.856	734228.3971	1.16	0.00
5439	1541338.83	734171.8993	0.00	0.00
5440	1541336.947	734170.4705	0.00	0.00
5441	1541334.62	734169.5716	0.00	0.00
5442	1541334.361	734167.5623	0.00	0.00
5443	1541332.624	734166.4577	0.00	0.00
5444	1541554.772	734090.2539	0.00	0.00
5445	1541556.772	734090.2077	0.00	0.00
5446	1541556.558	734092.1703	0.00	0.00
5447	1541557.828	734093.1613	0.00	0.00
5448	1541558.151	734123.1711	0.03	0.00
5449	1541556.423	734123.8709	0.07	0.00
5450	1541556.351	734126.0619	0.00	0.00
5451	1541556.786	734128.6641	0.00	-0.02

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1601	1541462.521	734160.219	0.01	0.00
1602	1541460.651	734161.2047	0.35	0.00
1603	1541458.836	734161.7628	0.69	0.00
1604	1541456.989	734162.5855	0.78	0.00
1605	1541455.147	734163.3532	0.68	0.00
1606	1541453.306	734164.1048	0.56	0.00
1607	1541451.467	734164.8537	0.44	0.00
1608	1541449.646	734165.455	0.31	0.00
1609	1541447.817	734166.1229	0.19	0.00
1610	1541446.004	734166.6595	0.06	0.00
1611	1541444.187	734167.2242	0.05	0.00
1612	1541442.319	734168.1843	0.07	0.00
1613	1541440.524	734168.5705	0.08	0.00
1614	1541438.741	734168.8725	0.09	0.00
1615	1541436.883	734169.7581	0.10	0.00
1616	1541435.078	734170.2212	0.09	0.00
1617	1541433.296	734170.5141	0.00	0.00
1618	1541431.444	734171.3622	0.00	0.00
1619	1541429.595	734172.1323	0.00	0.00
1620	1541427.735	734172.9401	0.00	0.00
1621	1541425.879	734173.9962	0.00	0.00
1622	1541424.23	734173.3027	0.00	0.00
1623	1541422.349	734174.2309	0.00	0.00
1624	1541420.673	734173.673	0.00	0.00
1625	1541365.367	734115.6513	0.00	0.00
1626	1541365.962	734113.8368	0.21	0.00
1627	1541366.315	734112.0513	0.60	0.00
1628	1541366.624	734110.2753	0.94	0.00
1629	1541366.965	734108.5163	0.94	0.00
1630	1541365.885	734106.8735	1.00	0.00
1631	1541364.822	734105.6581	0.90	0.00
1632	1541364.929	734104.5662	0.80	0.00
1633	1541365.695	734103.2715	0.67	0.00
1634	1541366.325	734101.512	0.54	0.00
1635	1541366.719	734099.8009	0.43	0.00
1636	1541367.096	734098.0599	0.36	0.00
1637	1541367.763	734096.3116	0.27	0.00
1638	1541368.751	734094.5558	0.16	0.00
1639	1541484.764	734091.8729	0.00	-1.08
1640	1541485.713	734093.5837	0.00	-0.80
1641	1541487.1	734095.2842	0.00	-0.40
1642	1541488.746	734096.9788	0.00	-0.10
1643	1541490.22	734098.6778	0.00	0.00
1644	1541491.171	734100.3883	0.00	-0.25
1645	1541491.655	734102.109	0.00	-0.68
1646	1541491.996	734103.8329	0.00	-1.51
1647	1541492.66	734105.5491	0.00	-2.31
1648	1541491.77	734107.3025	0.00	-3.69
1649	1541490.731	734109.0591	0.00	-5.23
1650	1541491.407	734110.7756	0.00	-5.88
1651	1541492.058	734112.4929	0.00	-6.48
1652	1541490.785	734114.2553	0.00	-6.98
1653	1541490.046	734116.0048	0.00	-7.42
1654	1541489.797	734117.7419	0.00	-7.55
1655	1541489.479	734119.4807	0.00	-7.58
1656	1541488.599	734121.2319	0.00	-7.30
1657	1541487.462	734122.9894	0.00	-6.81
1658	1541486.387	734124.7471	0.00	-6.32
1659	1541487.254	734126.4583	0.00	-5.92
1660	1541485.987	734128.2174	0.00	-5.62
1661	1541486.69	734129.9311	0.00	-5.54
1662	1541485.412	734131.6925	0.00	-5.56
1663	1541486.082	734133.408	0.00	-5.52
1664	1541484.762	734135.172	0.00	-5.31
1665	1541485.377	734136.8928	0.00	-5.26
1666	1541483.953	734138.6617	0.00	-5.01
1667	1541484.481	734140.3859	0.00	-4.93
1668	1541484.984	734142.087	0.00	-4.83
1669	1541483.574	734143.8	0.00	-4.53
1670	1541482.313	734145.4727	0.00	-4.49
1671	1541481.168	734147.1058	0.00	-4.44
1672	1541482.246	734148.5261	0.00	-4.50
1673	1541483.38	734149.9146	0.00	-4.41
1674	1541482.287	734151.5852	0.00	-4.42
1675	1541481.24	734153.283	0.00	-4.44
1676	1541480.239	734155.0085	0.00	-4.48
1677	1541478.146	734155.3355	0.00	-4.30
1678	1541476.365	734155.6631	0.00	-4.02
1679	1541475.02	734156.9669	0.00	-3.70
1680	1541473.195	734157.0271	0.00	-3.13

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5452	1541500.714	734215.0907	0.19	0.00
5453	1541499.619	734216.7653	0.09	0.00
5454	1541498.524	734218.4399	0.00	0.00
5455	1541496.043	734219.053	1.52	0.00
5456	1541493.847	734219.2335	3.10	0.00
5457	1541491.991	734218.9031	4.07	0.00
5458	1541490.899	734220.5787	4.03	0.00
5459	1541489.03	734220.3042	5.03	0.00
5460	1541487.074	734220.1909	5.81	0.00
5461	1541486.056	734221.911	5.78	0.00
5462	1541485.085	734223.6587	4.95	0.00
5463	1541483.261	734223.4159	5.10	0.00
5464	1541481.273	734223.4732	4.92	0.00
5465	1541479.024	734223.9923	4.63	0.00
5466	1541476.899	734224.2949	4.48	0.00
5467	1541474.856	734224.3949	3.92	0.00
5468	1541473.314	734225.661	3.08	0.00
5469	1541471.239	734226.3301	2.97	0.00
5470	1541469.288	734226.7961	3.12	0.00
5471	1541467.345	734227.29	3.25	0.00
5472	1541465.424	734227.8415	3.37	0.00
5473	1541463.528	734228.4726	3.46	0.00
5474	1541461.663	734229.1874	3.48	0.00
5475	1541459.832	734229.9843	3.51	0.00
5476	1541458.037	734230.8595	3.53	0.00
5477	1541456.264	734231.7853	0.00	-0.38
5478	1541454.562	734232.7921	0.00	-1.86
5479	1541452.896	734233.8944	0.00	-3.32
5480	1541451.294	734234.7119	0.00	-4.72
5481	1541449.932	734235.915	0.00	-4.75
5482	1541448.319	734237.095	0.00	-4.43
5483	1541446.755	734238.3016	0.00	-5.20
5484	1541445.17	734239.5146	0.00	-5.20
5485	1541443.219	734238.8419	0.00	-5.20
5486	1541441.206	734238.2315	0.00	-5.20
5487	1541439.651	734239.4863	0.00	-5.20
5488	1541437.911	734238.6975	0.00	-4.17
5489	1541436.43	734240.0177	0.00	-4.69
5490	1541434.769	734239.4322	0.00	-3.78
5491	1541432.75	734240.2564	0.00	-4.23
5492	1541431.383	734241.9616	0.00	-5.20
5493	1541428.851	734242.5616	0.00	-5.20
5494	1541427.865	734240.9796	0.00	-4.82
5495	1541425.829	734240.6174	0.00	-4.50
5496	1541424.226	734241.7611	0.00	-5.20
5497	1541422.469	734242.7969	0.00	-5.55
5498	1541420.659	734243.9349	0.00	-5.98
5499	1541418.531	734244.7291	0.00	-4.94
5500	1541416.691	734245.3763	0.00	-3.79
5501	1541414.846	734244.4112	0.00	-2.06
5502	1541413.851	734243.0226	0.00	-0.84
5503	1541412.106	734243.304	0.01	0.00
5504	1541411.232	734241.7817	0.70	0.00
5505	1541409.296	734242.3434	0.65	0.00
5506	1541407.76	734240.983	1.28	0.00
5507	1541406.208	734239.621	2.01	0.00
5508	1541404.264	734238.3677	2.88	0.00
5509	1541402.418	734237.0855	3.37	0.00
5510	1541401.014	734235.6797	4.39	0.00
5511	1541399.61	734234.2726	3.84	0.00
5512	1541397.94	734232.938	3.19	0.00
5513	1541396.215	734231.6173	2.56	0.00
5514	1541394.825	734230.2036	1.88	0.00
5515	1541392.928	734228.9297	1.27	0.00
5516	1541338.378	734173.8482	0.00	0.00
5517	1541336.714	734172.6017	0.00	0.00
5518	1541334.721	734171.5623	0.00	0.00
5519	1541332.672	734170.4589	0.00	0.00
5520	1541332.648	734168.4583	0.00	0.00
5521	1541557.807	734091.1607	0.00	0.00
5522	1541558.172	734125.1717	0.09	0.00
5523	1541558.068	734127.1274	0.01	0.00
5524	1541497.423	734220.1103	0.00	0.00
5525	1541494.94	734220.7205	1.50	0.00
5526	1541492.747	734220.9033	3.00	0.00
5527	1541491.665	734222.5838	2.93	0.00
5528	1541489.836	734222.2728	4.04	0.00
5529	1541487.988	734222.0104	5.01	0.00
5530	1541486.997	734223.7469	4.60	0.00
5531	1541486.055	734225.5106	3.80	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1681	1541471.553	734157.9818	0.00	-2.54
1682	1541469.745	734158.3495	0.00	-1.87
1683	1541467.956	734158.669	0.00	-1.20
1684	1541466.087	734159.6209	0.00	-0.69
1685	1541464.166	734161.0015	0.00	-0.31
1686	1541462.27	734162.2013	0.05	0.00
1687	1541460.402	734163.1893	0.38	0.00
1688	1541458.586	734163.7446	0.73	0.00
1689	1541456.739	734164.5657	0.86	0.00
1690	1541454.896	734165.3357	0.75	0.00
1691	1541453.054	734166.0902	0.62	0.00
1692	1541451.216	734166.8368	0.50	0.00
1693	1541449.396	734167.4363	0.37	0.00
1694	1541447.566	734168.1057	0.25	0.00
1695	1541445.753	734168.6428	0.12	0.00
1696	1541443.936	734169.2079	0.08	0.00
1697	1541442.068	734170.1695	0.09	0.00
1698	1541440.273	734170.555	0.10	0.00
1699	1541438.49	734170.8562	0.11	0.00
1700	1541436.632	734171.7422	0.12	0.00
1701	1541434.827	734172.2059	0.01	0.00
1702	1541433.045	734172.4977	0.00	0.00
1703	1541431.193	734173.3448	0.00	0.00
1704	1541429.345	734174.1128	0.00	0.00
1705	1541427.501	734174.9289	0.00	0.00
1706	1541425.62	734176.0047	0.00	0.00
1707	1541423.967	734175.2633	0.00	0.00
1708	1541422.098	734176.2197	0.00	0.00
1709	1541420.422	734175.658	0.00	0.00
1710	1541363.38	734115.8851	0.06	0.00
1711	1541363.974	734114.0705	0.43	0.00
1712	1541364.328	734112.2845	0.81	0.00
1713	1541364.638	734110.5047	0.98	0.00
1714	1541364.988	734108.7238	1.02	0.00
1715	1541363.867	734107.192	1.03	0.00
1716	1541362.786	734105.8487	0.85	0.00
1717	1541363.079	734104.7067	0.76	0.00
1718	1541363.657	734103.2447	0.63	0.00
1719	1541364.349	734101.58	0.55	0.00
1720	1541364.714	734099.8408	0.45	0.00
1721	1541365.097	734098.1051	0.37	0.00
1722	1541365.765	734096.3576	0.26	0.00
1723	1541366.75	734094.6021	0.19	0.00
1724	1541486.764	734091.8267	0.00	-0.81
1725	1541487.712	734093.5375	0.00	-0.48
1726	1541489.1	734095.2379	0.00	-0.08
1727	1541490.747	734096.9325	0.00	0.00
1728	1541492.219	734098.6316	0.00	-0.24
1729	1541493.17	734100.342	0.00	-0.53
1730	1541493.653	734102.0627	0.00	-1.14
1731	1541493.995	734103.7865	0.00	-1.69
1732	1541494.66	734105.5027	0.00	-2.18
1733	1541493.769	734107.256	0.00	-3.61
1734	1541492.73	734109.0126	0.00	-5.10
1735	1541493.406	734110.729	0.00	-5.74
1736	1541494.058	734112.4462	0.00	-6.36
1737	1541492.783	734114.2087	0.00	-7.07
1738	1541492.045	734115.9582	0.00	-7.57
1739	1541491.795	734117.6952	0.00	-7.71
1740	1541491.475	734119.434	0.00	-7.75
1741	1541490.597	734121.1851	0.00	-7.54
1742	1541489.463	734122.9425	0.00	-7.10
1743	1541488.385	734124.7002	0.00	-6.54
1744	1541489.249	734126.4115	0.00	-5.98
1745	1541487.984	734128.1705	0.00	-5.44
1746	1541488.687	734129.8841	0.00	-5.36
1747	1541487.409	734131.6454	0.00	-5.45
1748	1541488.083	734133.3608	0.00	-5.36
1749	1541486.764	734135.1248	0.00	-5.40
1750	1541487.383	734136.8452	0.00	-5.28
1751	1541485.956	734138.6146	0.00	-5.21
1752	1541486.481	734140.3388	0.00	-5.14
1753	1541487.1	734141.9805	0.00	-4.89
1754	1541485.782	734143.6407	0.00	-4.61
1755	1541484.555	734145.262	0.00	-4.53
1756	1541483.393	734146.8853	0.00	-4.52
1757	1541484.518	734148.2675	0.00	-4.44
1758	1541485.621	734149.7002	0.00	-4.11
1759	1541484.496	734151.3573	0.00	-4.09
1760	1541483.411	734153.0415	0.00	-4.10

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5532	1541484.152	734225.4269	3.84	0.00
5533	1541482.327	734225.1836	3.90	0.00
5534	1541480.323	734225.2124	3.86	0.00
5535	1541478.043	734225.963	3.55	0.00
5536	1541475.723	734225.9166	3.45	0.00
5537	1541474.413	734227.3961	2.67	0.00
5538	1541472.411	734227.7891	2.53	0.00
5539	1541470.457	734228.301	2.66	0.00
5540	1541468.51	734228.7622	2.81	0.00
5541	1541466.58	734229.2838	2.94	0.00
5542	1541464.674	734229.8855	3.04	0.00
5543	1541462.8	734230.5754	3.13	0.00
5544	1541460.96	734231.3525	3.19	0.00
5545	1541459.16	734232.2026	3.24	0.00
5546	1541457.391	734233.1373	1.87	0.00
5547	1541455.655	734234.1446	0.00	-0.92
5548	1541453.958	734235.2371	0.00	-2.37
5549	1541452.124	734236.3471	0.00	-3.90
5550	1541450.396	734237.4816	0.00	-2.96
5551	1541449.09	734238.7174	0.00	-3.46
5552	1541447.501	734239.9037	0.00	-4.48
5553	1541445.919	734241.1175	0.00	-5.20
5554	1541443.593	734240.7405	0.00	-5.20
5555	1541441.652	734240.0817	0.00	-5.20
5556	1541440.108	734241.3473	0.00	-5.20
5557	1541438.13	734240.7778	0.00	-5.20
5558	1541436.617	734242.0978	0.00	-5.20
5559	1541434.857	734241.3356	0.00	-5.20
5560	1541433.441	734242.6364	0.00	-5.20
5561	1541432.116	734244.114	0.00	-5.20
5562	1541430.444	734243.6655	0.00	-5.20
5563	1541429.115	734244.9134	0.00	-5.53
5564	1541427.66	734244.6329	0.00	-5.54
5565	1541426.667	734243.9063	0.00	-5.44
5566	1541426.526	734242.2647	0.00	-5.20
5567	1541424.813	734243.3657	0.00	-5.48
5568	1541423.129	734244.38	0.00	-5.83
5569	1541421.687	734245.3928	0.00	-6.20
5570	1541419.938	734245.9497	0.00	-6.41
5571	1541418.095	734246.7179	0.00	-5.22
5572	1541416.238	734247.4258	0.00	-4.01
5573	1541415.025	734246.219	0.00	-2.79
5574	1541413.277	734246.5456	0.00	-1.41
5575	1541412.707	734244.947	0.00	-0.75
5576	1541410.789	734245.5036	0.09	0.00
5577	1541410.203	734243.8752	0.27	0.00
5578	1541408.285	734244.4241	1.02	0.00
5579	1541407.367	734242.8871	1.45	0.00
5580	1541405.836	734241.5193	2.11	0.00
5581	1541404.284	734240.1559	2.79	0.00
5582	1541402.34	734238.9011	3.59	0.00
5583	1541400.494	734237.618	3.64	0.00
5584	1541399.089	734236.2121	4.60	0.00
5585	1541397.685	734234.8048	4.09	0.00
5586	1541396.013	734233.4703	3.49	0.00
5587	1541394.287	734232.1498	2.86	0.00
5588	1541392.896	734230.7363	2.17	0.00
5589	1541390.999	734229.4622	1.55	0.00
5590	1541337.926	734175.7971	0.00	0.00
5591	1541336.388	734174.5859	0.00	0.00
5592	1541334.592	734173.5535	0.00	0.00
5593	1541332.696	734172.4595	0.00	0.00
5594	1541496.317	734221.7778	0.00	0.00
5595	1541493.841	734222.3896	1.47	0.00
5596	1541492.762	734224.0707	1.30	0.00
5597	1541490.629	734224.294	2.71	0.00
5598	1541488.825	734223.9987	3.82	0.00
5599	1541487.871	734225.7578	3.33	0.00
5600	1541486.958	734227.5376	2.16	0.00
5601	1541485.14	734227.2878	2.67	0.00
5602	1541483.233	734227.2004	2.69	0.00
5603	1541481.421	734226.9504	2.77	0.00
5604	1541479.64	734226.9138	2.86	0.00
5605	1541478.443	734228.2943	1.97	0.00
5606	1541476.672	734227.6192	2.49	0.00
5607	1541475.405	734228.9233	2.11	0.00
5608	1541473.589	734229.3323	2.20	0.00
5609	1541471.683	734229.7963	2.21	0.00
5610	1541469.734	734230.2373	2.36	0.00
5611	1541467.795	734230.7218	2.49	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1761	1541482.372	734154.7537	0.00	-4.11
1762	1541481.375	734156.4935	0.00	-4.16
1763	1541479.264	734156.7646	0.00	-4.61
1764	1541477.151	734157.1107	0.00	-4.38
1765	1541476.018	734158.8101	0.00	-4.05
1766	1541473.551	734158.9772	0.00	-3.24
1767	1541471.344	734159.9089	0.00	-2.44
1768	1541469.5	734160.3342	0.00	-1.77
1769	1541467.703	734160.6586	0.00	-1.11
1770	1541465.837	734161.6036	0.00	-0.63
1771	1541463.903	734163.0183	0.00	-0.26
1772	1541462.043	734164.1894	0.09	0.00
1773	1541460.152	734165.1698	0.44	0.00
1774	1541458.335	734165.7267	0.77	0.00
1775	1541456.488	734166.5457	0.93	0.00
1776	1541454.645	734167.3181	0.81	0.00
1777	1541452.803	734168.0756	0.69	0.00
1778	1541450.965	734168.8199	0.56	0.00
1779	1541449.145	734169.4176	0.44	0.00
1780	1541447.315	734170.0884	0.31	0.00
1781	1541445.502	734170.626	0.18	0.00
1782	1541443.685	734171.1916	0.10	0.00
1783	1541441.817	734172.1546	0.11	0.00
1784	1541440.022	734172.5395	0.12	0.00
1785	1541438.239	734172.84	0.13	0.00
1786	1541436.381	734173.7263	0.08	0.00
1787	1541434.576	734174.1906	0.00	0.00
1788	1541432.794	734174.4812	0.00	0.00
1789	1541430.942	734175.3274	0.00	0.00
1790	1541429.099	734176.1011	0.00	0.00
1791	1541427.251	734176.9141	0.00	0.00
1792	1541425.368	734177.9958	0.00	0.00
1793	1541423.716	734177.2467	0.00	0.00
1794	1541421.847	734178.2049	0.00	0.00
1795	1541420.171	734177.6429	0.00	0.00
1796	1541361.393	734116.1189	0.29	0.00
1797	1541361.987	734114.3045	0.64	0.00
1798	1541362.341	734112.5188	0.97	0.00
1799	1541362.652	734110.7411	1.01	0.00
1800	1541362.997	734108.9712	1.06	0.00
1801	1541361.878	734107.4109	0.95	0.00
1802	1541360.808	734106.033	0.75	0.00
1803	1541361.111	734104.7976	0.65	0.00
1804	1541361.67	734103.3164	0.58	0.00
1805	1541362.336	734101.6172	0.55	0.00
1806	1541362.718	734099.8906	0.47	0.00
1807	1541363.096	734098.1501	0.37	0.00
1808	1541363.766	734096.4036	0.27	0.00
1809	1541364.75	734094.6483	0.18	0.00
1810	1541488.764	734091.7804	0.00	-0.46
1811	1541489.712	734093.4912	0.00	-0.12
1812	1541491.1	734095.1917	0.00	0.00
1813	1541492.747	734096.8862	0.00	-0.16
1814	1541494.218	734098.5853	0.00	-0.48
1815	1541495.168	734100.2957	0.00	-0.74
1816	1541495.651	734102.0164	0.00	-1.03
1817	1541495.994	734103.7401	0.00	-1.56
1818	1541496.659	734105.4562	0.00	-2.07
1819	1541495.768	734107.2095	0.00	-3.60
1820	1541494.729	734108.9661	0.00	-4.94
1821	1541495.406	734110.6824	0.00	-5.59
1822	1541496.059	734112.3995	0.00	-6.20
1823	1541494.782	734114.162	0.00	-6.98
1824	1541494.043	734115.9114	0.00	-7.41
1825	1541493.793	734117.6485	0.00	-7.41
1826	1541493.472	734119.3872	0.00	-7.44
1827	1541492.595	734121.1382	0.00	-7.55
1828	1541491.463	734122.8956	0.00	-7.25
1829	1541490.382	734124.6534	0.00	-6.61
1830	1541491.244	734126.3645	0.00	-6.16
1831	1541489.981	734128.1235	0.00	-5.48
1832	1541490.685	734129.8371	0.00	-5.17
1833	1541489.406	734131.5984	0.00	-5.28
1834	1541490.084	734133.3135	0.00	-5.19
1835	1541488.765	734135.0775	0.00	-5.25
1836	1541489.389	734136.7981	0.00	-5.12
1837	1541487.958	734138.5675	0.00	-5.20
1838	1541488.514	734140.2715	0.00	-4.88
1839	1541489.319	734141.8308	0.00	-4.54
1840	1541488.071	734143.4385	0.00	-4.54
5612	1541465.878	734231.2883	2.61	0.00
5613	1541463.992	734231.9473	2.70	0.00
5614	1541462.141	734232.6998	2.77	0.00
5615	1541460.33	734233.5413	2.82	0.00
5616	1541458.558	734234.4326	2.98	0.00
5617	1541456.802	734235.4381	0.12	0.00
5618	1541455.123	734236.5169	0.00	-1.30
5619	1541453.434	734237.6301	0.00	-2.61
5620	1541451.608	734238.796	0.00	-1.35
5621	1541449.926	734240.2393	0.00	-2.41
5622	1541448.305	734241.4661	0.00	-3.37
5623	1541446.714	734242.6848	0.00	-4.15
5624	1541444.343	734242.3444	0.00	-5.20
5625	1541442.034	734241.9878	0.00	-5.20
5626	1541440.499	734243.2657	0.00	-5.20
5627	1541438.588	734242.6473	0.00	-5.20
5628	1541437.108	734243.9864	0.00	-5.20
5629	1541435.16	734243.4628	0.00	-5.20
5630	1541433.756	734244.8685	0.00	-5.20
5631	1541432.393	734246.3383	0.00	-5.72
5632	1541430.76	734245.6567	0.00	-5.61
5633	1541429.494	734247.1528	0.00	-6.04
5634	1541427.858	734246.5146	0.00	-5.98
5635	1541426.336	734245.9708	0.00	-5.89
5636	1541425.056	734245.1578	0.00	-5.81
5637	1541423.499	734246.3557	0.00	-6.19
5638	1541421.837	734247.1738	0.00	-6.54
5639	1541419.947	734247.7669	0.00	-6.80
5640	1541418.059	734248.5551	0.00	-5.57
5641	1541416.238	734249.2412	0.00	-4.41
5642	1541414.322	734248.0627	0.00	-2.71
5643	1541412.415	734248.6176	0.00	-1.21
5644	1541411.378	734247.1331	0.00	-0.32
5645	1541409.469	734247.6804	0.74	0.00
5646	1541408.864	734246.0559	0.89	0.00
5647	1541406.941	734246.5959	1.91	0.00
5648	1541406.362	734244.9623	2.04	0.00
5649	1541405.444	734243.4233	2.35	0.00
5650	1541403.912	734242.054	2.99	0.00
5651	1541402.359	734240.6897	3.64	0.00
5652	1541400.415	734239.4339	4.21	0.00
5653	1541398.57	734238.1501	4.03	0.00
5654	1541397.164	734236.7442	4.16	0.00
5655	1541395.759	734235.337	4.32	0.00
5656	1541394.086	734234.0027	3.79	0.00
5657	1541392.359	734232.6823	3.15	0.00
5658	1541390.967	734231.269	2.46	0.00
5659	1541389.071	734229.9948	1.85	0.00
5660	1541337.728	734177.7719	0.00	0.00
5661	1541336.158	734176.5811	0.00	0.00
5662	1541334.495	734175.5497	0.00	0.00
5663	1541332.72	734174.4601	0.00	0.00
5664	1541495.211	734223.4453	0.00	0.00
5665	1541494.106	734225.1128	0.00	0.00
5666	1541491.74	734225.7903	0.88	0.00
5667	1541489.66	734226.0452	2.04	0.00
5668	1541488.748	734227.8259	1.07	0.00
5669	1541487.851	734229.6123	0.23	0.00
5670	1541486.046	734229.3178	1.08	0.00
5671	1541484.21	734229.0578	1.61	0.00
5672	1541482.267	734228.9502	1.58	0.00
5673	1541480.395	734228.7005	1.69	0.00
5674	1541479.203	734230.2392	0.81	0.00
5675	1541477.056	734229.9503	1.00	0.00
5676	1541475.051	734230.7885	1.62	0.00
5677	1541473.104	734231.2675	1.74	0.00
5678	1541471.147	734231.6847	1.89	0.00
5679	1541469.197	734232.1288	2.04	0.00
5680	1541467.268	734232.6481	2.16	0.00
5681	1541465.368	734233.2634	2.27	0.00
5682	1541463.504	734233.9788	2.35	0.00
5683	1541461.684	734234.7914	2.45	0.00
5684	1541459.921	734235.6933	2.79	0.00
5685	1541458.241	734236.3654	3.24	0.00
5686	1541456.814	734237.4888	0.57	0.00
5687	1541455.143	734238.5444	0.00	-1.05
5688	1541453.49	734239.6829	1.78	0.00
5689	1541451.895	734240.8623	0.00	-0.62
5690	1541450.325	734242.0985	0.00	-1.54
5691	1541448.738	734243.3103	0.00	-2.35

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1841	1541486.869	734145.0366	0.00	-4.46
1842	1541485.683	734146.642	0.00	-4.48
1843	1541486.783	734148.0667	0.00	-4.15
1844	1541487.871	734149.5095	0.00	-3.81
1845	1541486.717	734151.1502	0.00	-3.79
1846	1541485.601	734152.8169	0.00	-3.77
1847	1541484.528	734154.5121	0.00	-3.77
1848	1541483.502	734156.2363	0.00	-3.77
1849	1541482.522	734157.9878	0.00	-3.94
1850	1541480.418	734158.2573	0.00	-4.47
1851	1541478.304	734158.5407	0.00	-4.72
1852	1541477.393	734160.3028	0.00	-4.61
1853	1541475.127	734160.5859	0.00	-3.76
1854	1541472.976	734161.039	0.00	-3.03
1855	1541471.042	734161.888	0.00	-2.33
1856	1541469.238	734162.3181	0.00	-1.67
1857	1541467.45	734162.65	0.00	-1.01
1858	1541465.57	734163.5679	0.00	-0.58
1859	1541463.758	734165.2085	0.00	-0.23
1860	1541461.793	734166.1543	0.16	0.00
1861	1541459.901	734167.1505	0.50	0.00
1862	1541458.084	734167.7084	0.82	0.00
1863	1541456.237	734168.5257	0.99	0.00
1864	1541454.394	734169.3005	0.87	0.00
1865	1541452.552	734170.0609	0.75	0.00
1866	1541450.714	734170.8029	0.63	0.00
1867	1541448.894	734171.3988	0.50	0.00
1868	1541447.064	734172.0711	0.37	0.00
1869	1541445.251	734172.6092	0.24	0.00
1870	1541443.434	734173.1752	0.12	0.00
1871	1541441.566	734174.1396	0.13	0.00
1872	1541439.771	734174.5239	0.14	0.00
1873	1541437.988	734174.8236	0.15	0.00
1874	1541436.13	734175.7104	0.00	0.00
1875	1541434.325	734176.1752	0.00	0.00
1876	1541432.544	734176.4647	0.00	0.00
1877	1541430.692	734177.31	0.00	0.00
1878	1541428.849	734178.0846	0.00	0.00
1879	1541427	734178.898	0.00	0.00
1880	1541425.117	734179.9808	0.00	0.00
1881	1541423.464	734179.2322	0.00	0.00
1882	1541421.596	734180.1909	0.00	0.00
1883	1541419.92	734179.6278	0.00	0.00
1884	1541359.406	734116.3526	0.51	0.00
1885	1541359.999	734114.5385	0.88	0.00
1886	1541360.355	734112.7526	0.96	0.00
1887	1541360.665	734110.9742	1.02	0.00
1888	1541361.009	734109.2014	1.07	0.00
1889	1541359.896	734107.6347	0.83	0.00
1890	1541358.836	734106.2158	0.60	0.00
1891	1541359.147	734104.891	0.55	0.00
1892	1541359.675	734103.3705	0.53	0.00
1893	1541360.341	734101.6671	0.47	0.00
1894	1541360.717	734099.9347	0.43	0.00
1895	1541361.098	734098.1969	0.38	0.00
1896	1541361.767	734096.4495	0.28	0.00
1897	1541362.75	734094.6946	0.19	0.00
1898	1541490.765	734091.7342	0.00	-0.18
1899	1541491.711	734093.445	0.05	0.00
1900	1541493.1	734095.1454	0.00	-0.06
1901	1541494.747	734096.8399	0.00	-0.41
1902	1541496.218	734098.539	0.00	-0.73
1903	1541497.167	734100.2494	0.00	-0.99
1904	1541497.648	734101.9701	0.00	-1.15
1905	1541497.992	734103.6938	0.00	-1.46
1906	1541498.659	734105.4097	0.00	-2.11
1907	1541497.767	734107.163	0.00	-3.60
1908	1541496.728	734108.9196	0.00	-4.81
1909	1541497.405	734110.6358	0.00	-5.42
1910	1541498.059	734112.3528	0.00	-6.03
1911	1541496.781	734114.1153	0.00	-6.82
1912	1541496.041	734115.8647	0.00	-7.12
1913	1541495.79	734117.6017	0.00	-7.13
1914	1541495.468	734119.3404	0.00	-7.13
1915	1541494.593	734121.0913	0.00	-7.23
1916	1541493.463	734122.8486	0.00	-7.38
1917	1541492.38	734124.6064	0.00	-6.77
1918	1541493.239	734126.3176	0.00	-6.13
1919	1541491.978	734128.0765	0.00	-5.54
1920	1541492.682	734129.7899	0.00	-5.02
5692	1541447.153	734244.5248	0.00	-3.01
5693	1541445.136	734243.9126	0.00	-4.75
5694	1541442.786	734243.5948	0.00	-5.20
5695	1541441.256	734244.8794	0.00	-5.20
5696	1541438.998	734244.5825	0.00	-5.20
5697	1541437.538	734245.9428	0.00	-5.26
5698	1541435.671	734245.3719	0.00	-5.20
5699	1541434.282	734246.8059	0.00	-5.74
5700	1541432.951	734248.2948	0.00	-6.25
5701	1541431.08	734247.886	0.00	-6.15
5702	1541429.639	734249.5373	0.00	-6.63
5703	1541428.229	734248.4369	0.00	-6.39
5704	1541426.608	734248.0953	0.00	-6.37
5705	1541425.035	734247.4426	0.00	-6.27
5706	1541423.671	734248.8866	0.00	-6.65
5707	1541421.827	734249.0351	0.00	-6.87
5708	1541419.993	734249.3269	0.00	-6.97
5709	1541418.528	734250.4352	0.00	-6.05
5710	1541416.435	734250.9619	0.00	-4.55
5711	1541414.303	734249.8541	0.00	-2.94
5712	1541412.384	734250.4285	0.00	-1.36
5713	1541410.499	734249.1817	0.29	0.00
5714	1541408.577	734249.7283	0.89	0.00
5715	1541407.547	734248.222	1.49	0.00
5716	1541405.624	734248.7588	2.11	0.00
5717	1541405.016	734247.1321	2.54	0.00
5718	1541404.438	734245.4976	2.96	0.00
5719	1541403.52	734243.9577	3.38	0.00
5720	1541401.988	734242.5876	4.02	0.00
5721	1541400.433	734241.2229	4.67	0.00
5722	1541398.491	734239.9664	4.70	0.00
5723	1541396.646	734238.682	4.24	0.00
5724	1541395.239	734237.2762	3.92	0.00
5725	1541393.833	734235.869	3.93	0.00
5726	1541392.158	734234.535	4.05	0.00
5727	1541390.43	734233.2148	3.45	0.00
5728	1541389.037	734231.8017	2.76	0.00
5729	1541387.142	734230.5273	2.14	0.00
5730	1541337.779	734179.772	0.00	0.00
5731	1541336.092	734178.5911	0.00	0.00
5732	1541334.45	734177.5589	0.00	0.00
5733	1541332.744	734176.4608	0.00	0.00
5734	1541493.083	734226.8277	0.00	0.00
5735	1541490.807	734227.5618	0.00	0.00
5736	1541489.922	734229.3506	0.00	0.00
5737	1541489.023	734231.1417	0.00	0.00
5738	1541486.925	734231.386	0.00	0.00
5739	1541485.09	734231.0791	0.43	0.00
5740	1541483.21	734230.7862	0.63	0.00
5741	1541481.191	734230.6429	0.76	0.00
5742	1541479.933	734232.1757	0.54	0.00
5743	1541478.043	734231.6547	0.80	0.00
5744	1541476.351	734232.2123	0.82	0.00
5745	1541474.461	734232.7667	1.07	0.00
5746	1541472.505	734233.1666	1.42	0.00
5747	1541470.551	734233.5638	1.58	0.00
5748	1541468.608	734234.0375	1.72	0.00
5749	1541466.689	734234.6065	1.83	0.00
5750	1541464.818	734235.2872	1.96	0.00
5751	1541462.975	734236.0693	2.13	0.00
5752	1541461.161	734236.9582	2.63	0.00
5753	1541459.179	734237.9016	3.18	0.00
5754	1541457.382	734239.1476	3.21	0.00
5755	1541455.678	734240.2394	2.34	0.00
5756	1541454.036	734241.4252	2.28	0.00
5757	1541452.471	734242.6328	0.98	0.00
5758	1541450.887	734243.8487	0.00	-0.48
5759	1541449.299	734245.0577	0.00	-1.21
5760	1541447.713	734246.2705	0.00	-2.18
5761	1541445.58	734245.7558	0.00	-3.60
5762	1541443.58	734245.1663	0.00	-5.13
5763	1541442.055	734246.4578	0.00	-5.39
5764	1541439.764	734246.2057	0.00	-5.28
5765	1541438.314	734247.5778	0.00	-5.80
5766	1541436.123	734247.3516	0.00	-5.82
5767	1541434.766	734248.8135	0.00	-6.37
5768	1541433.468	734250.3389	0.00	-6.88
5769	1541431.672	734249.8336	0.00	-6.73
5770	1541430.525	734251.4248	0.00	-6.55
5771	1541428.482	734251.3889	0.00	-6.58

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
1921	1541491.403	734131.5512	0.00	-4.98
1922	1541492.085	734133.2662	0.00	-4.76
1923	1541490.767	734135.0301	0.00	-4.95
1924	1541491.394	734136.7512	0.00	-4.69
1925	1541489.964	734138.5205	0.00	-4.82
1926	1541490.626	734140.1719	0.00	-4.49
1927	1541491.598	734141.6592	0.00	-4.14
1928	1541490.388	734143.2589	0.00	-4.24
1929	1541489.176	734144.8522	0.00	-4.17
1930	1541487.972	734146.4532	0.00	-4.17
1931	1541489.057	734147.8906	0.00	-3.83
1932	1541490.14	734149.3308	0.00	-3.49
1933	1541488.963	734150.9501	0.00	-3.48
1934	1541487.82	734152.5933	0.00	-3.46
1935	1541486.718	734154.2644	0.00	-3.45
1936	1541485.662	734155.9653	0.00	-3.44
1937	1541484.655	734157.6956	0.00	-3.45
1938	1541483.697	734159.4532	0.00	-3.73
1939	1541481.587	734159.7624	0.00	-4.28
1940	1541479.501	734160.0381	0.00	-4.85
1941	1541478.605	734161.8277	0.00	-5.16
1942	1541476.521	734162.0781	0.00	-4.26
1943	1541474.421	734162.4317	0.00	-3.52
1944	1541472.546	734162.9687	0.00	-2.87
1945	1541470.744	734163.8582	0.00	-2.21
1946	1541468.991	734164.3136	0.00	-1.57
1947	1541467.223	734164.6332	0.00	-0.91
1948	1541465.571	734165.373	0.00	-0.56
1949	1541465.116	734167.1375	0.00	-0.42
1950	1541463.356	734167.3656	0.00	-0.12
1951	1541461.517	734168.1465	0.25	0.00
1952	1541459.647	734169.1344	0.56	0.00
1953	1541457.832	734169.6906	0.88	0.00
1954	1541455.986	734170.5058	1.05	0.00
1955	1541454.143	734171.2829	0.93	0.00
1956	1541452.301	734172.0462	0.81	0.00
1957	1541450.463	734172.7859	0.69	0.00
1958	1541448.643	734173.38	0.56	0.00
1959	1541446.813	734174.0538	0.44	0.00
1960	1541445	734174.5924	0.31	0.00
1961	1541443.183	734175.1588	0.18	0.00
1962	1541441.315	734176.1246	0.15	0.00
1963	1541439.52	734176.5083	0.16	0.00
1964	1541437.737	734176.8073	0.08	0.00
1965	1541435.879	734177.6945	0.00	0.00
1966	1541434.074	734178.1598	0.00	0.00
1967	1541432.293	734178.4482	0.00	0.00
1968	1541430.441	734179.2925	0.00	0.00
1969	1541428.598	734180.0681	0.00	0.00
1970	1541426.749	734180.8818	0.00	0.00
1971	1541424.866	734181.9658	0.00	0.00
1972	1541423.214	734181.2177	0.00	0.00
1973	1541421.345	734182.1769	0.00	0.00
1974	1541419.67	734181.6128	0.00	0.00
1975	1541357.419	734116.5864	0.74	0.00
1976	1541358.013	734114.7729	0.83	0.00
1977	1541358.369	734112.987	0.86	0.00
1978	1541358.68	734111.2087	1.01	0.00
1979	1541359.022	734109.4345	0.92	0.00
1980	1541357.917	734107.8595	0.66	0.00
1981	1541356.865	734106.4013	0.47	0.00
1982	1541357.18	734104.9851	0.48	0.00
1983	1541357.682	734103.4254	0.46	0.00
1984	1541358.342	734101.7145	0.42	0.00
1985	1541358.718	734099.9816	0.38	0.00
1986	1541359.098	734098.2427	0.30	0.00
1987	1541359.769	734096.4958	0.26	0.00
1988	1541360.75	734094.7408	0.21	0.00
1989	1541492.765	734091.6879	0.14	0.00
1990	1541493.71	734093.3988	0.00	-0.02
1991	1541495.1	734095.0991	0.00	-0.31
1992	1541496.748	734096.7936	0.00	-0.61
1993	1541498.217	734098.4927	0.00	-0.84
1994	1541499.166	734100.2031	0.00	-1.11
1995	1541499.646	734101.9238	0.00	-1.35
1996	1541499.991	734103.6473	0.00	-1.48
1997	1541500.659	734105.3632	0.00	-2.20
1998	1541499.766	734107.1165	0.00	-3.64
1999	1541498.726	734108.873	0.00	-4.68
2000	1541499.405	734110.5892	0.00	-5.31

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5772	1541427.356	734250.0367	0.00	-6.78
5773	1541425.479	734249.7285	0.00	-6.73
5774	1541424.475	734251.3958	0.00	-6.61
5775	1541422.821	734250.9333	0.00	-7.01
5776	1541420.943	734250.7328	0.00	-7.10
5777	1541420.048	734252.3289	0.00	-5.95
5778	1541418.18	734252.2918	0.00	-5.20
5779	1541416.269	734252.7956	0.00	-4.07
5780	1541414.508	734251.5876	0.00	-3.02
5781	1541412.591	734252.1689	0.00	-1.48
5782	1541410.458	734250.9898	0.06	0.00
5783	1541408.53	734251.5375	0.66	0.00
5784	1541406.652	734250.2678	1.53	0.00
5785	1541404.727	734250.8042	2.18	0.00
5786	1541403.7	734249.2934	2.74	0.00
5787	1541403.09	734247.6668	3.17	0.00
5788	1541402.513	734246.0317	3.59	0.00
5789	1541401.596	734244.4912	4.12	0.00
5790	1541400.063	734243.1207	4.85	0.00
5791	1541398.508	734241.7558	5.16	0.00
5792	1541396.566	734240.4986	4.92	0.00
5793	1541394.722	734239.2137	4.45	0.00
5794	1541393.313	734237.8081	4.12	0.00
5795	1541391.907	734236.401	3.90	0.00
5796	1541390.231	734235.0673	3.70	0.00
5797	1541388.502	734233.7473	3.75	0.00
5798	1541387.108	734232.3344	3.07	0.00
5799	1541385.213	734231.0599	2.43	0.00
5800	1541337.831	734181.7721	0.03	0.00
5801	1541336.119	734180.5909	0.00	0.00
5802	1541334.457	734179.5658	0.00	0.00
5803	1541332.768	734178.4614	0.00	0.00
5804	1541492.208	734228.6268	0.00	0.00
5805	1541491.333	734230.426	0.00	0.00
5806	1541490.438	734232.2153	0.00	0.00
5807	1541488.069	734232.925	0.00	0.00
5808	1541485.93	734233.1195	0.00	0.00
5809	1541484.03	734232.7657	0.00	0.00
5810	1541482.084	734232.4272	0.31	0.00
5811	1541480.741	734233.8699	0.11	0.00
5812	1541478.246	734233.5693	0.39	0.00
5813	1541476.153	734234.1757	0.63	0.00
5814	1541474.165	734234.61	0.79	0.00
5815	1541472.198	734234.9874	1.04	0.00
5816	1541470.246	734235.3705	1.25	0.00
5817	1541468.285	734235.8765	1.41	0.00
5818	1541466.408	734236.5091	1.59	0.00
5819	1541464.549	734237.237	1.89	0.00
5820	1541462.735	734238.0712	2.38	0.00
5821	1541460.948	734238.9774	2.75	0.00
5822	1541459.24	734239.9712	3.26	0.00
5823	1541457.583	734241.073	4.38	0.00
5824	1541455.958	734241.919	3.36	0.00
5825	1541454.659	734243.156	2.59	0.00
5826	1541453.078	734244.3466	1.50	0.00
5827	1541451.498	734245.5609	0.43	0.00
5828	1541449.907	734246.7663	0.00	-0.64
5829	1541448.321	734247.9789	0.00	-1.50
5830	1541446.146	734247.5068	0.00	-2.89
5831	1541444.035	734247.0205	0.00	-4.19
5832	1541442.527	734248.3288	0.00	-4.63
5833	1541440.57	734247.7934	0.00	-5.82
5834	1541439.131	734249.1767	0.00	-6.03
5835	1541436.914	734249.0006	0.00	-6.34
5836	1541435.574	734250.4805	0.00	-6.81
5837	1541434.31	734252.0241	0.00	-6.22
5838	1541432.247	734251.9462	0.00	-6.32
5839	1541430.923	734253.6885	0.00	-5.22
5840	1541429.353	734252.8382	0.00	-5.68
5841	1541427.413	734253.1405	0.00	-5.46
5842	1541426.294	734251.6975	0.00	-6.39
5843	1541425.323	734253.4385	0.00	-5.26
5844	1541423.551	734253.199	0.00	-5.47
5845	1541421.88	734252.7322	0.00	-5.83
5846	1541421.071	734254.5442	0.00	-4.79
5847	1541419.368	734254.1897	0.00	-4.93
5848	1541417.563	734254.1773	0.00	-4.43
5849	1541415.607	734254.735	0.00	-3.37
5850	1541414.335	734253.4462	0.00	-2.76
5851	1541412.44	734254.0242	0.00	-1.30

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2001	1541500.058	734112.3061	0.00	-5.92
2002	1541498.779	734114.0686	0.00	-6.63
2003	1541498.039	734115.8179	0.00	-6.84
2004	1541497.788	734117.5548	0.00	-6.84
2005	1541497.464	734119.2935	0.00	-6.84
2006	1541496.591	734121.0444	0.00	-6.91
2007	1541495.464	734122.8016	0.00	-7.05
2008	1541494.377	734124.5594	0.00	-6.74
2009	1541495.234	734126.2706	0.00	-6.07
2010	1541493.975	734128.0294	0.00	-5.54
2011	1541494.68	734129.7427	0.00	-5.15
2012	1541493.4	734131.504	0.00	-4.68
2013	1541494.086	734133.2187	0.00	-4.42
2014	1541492.768	734134.983	0.00	-4.52
2015	1541493.401	734136.7042	0.00	-4.26
2016	1541492.001	734138.4559	0.00	-4.40
2017	1541492.833	734140.0383	0.00	-4.07
2018	1541493.896	734141.4921	0.00	-3.99
2019	1541492.692	734143.0944	0.00	-4.07
2020	1541491.478	734144.6913	0.00	-3.96
2021	1541490.263	734146.287	0.00	-3.83
2022	1541491.341	734147.7292	0.00	-3.49
2023	1541492.389	734149.2076	0.00	-3.15
2024	1541491.192	734150.8113	0.00	-3.16
2025	1541490.022	734152.4354	0.00	-3.15
2026	1541488.891	734154.0859	0.00	-3.13
2027	1541487.804	734155.7662	0.00	-3.12
2028	1541486.766	734157.4775	0.00	-3.09
2029	1541485.78	734159.2188	0.00	-3.20
2030	1541484.842	734160.9869	0.00	-3.39
2031	1541482.779	734161.2328	0.00	-3.95
2032	1541480.683	734161.5533	0.00	-4.61
2033	1541479.791	734163.3495	0.00	-4.86
2034	1541477.711	734163.6158	0.00	-4.79
2035	1541475.648	734163.8621	0.00	-3.93
2036	1541473.679	734164.2697	0.00	-3.26
2037	1541472.099	734164.7678	0.00	-2.71
2038	1541470.537	734165.8323	0.00	-2.14
2039	1541468.752	734166.3224	0.00	-1.46
2040	1541466.972	734166.6495	0.00	-0.79
2041	1541466.696	734168.6204	0.00	-0.66
2042	1541464.883	734169.1103	0.00	-0.32
2043	1541463.104	734169.3763	0.00	-0.02
2044	1541461.266	734170.1281	0.32	0.00
2045	1541459.396	734171.1167	0.63	0.00
2046	1541457.581	734171.6725	0.94	0.00
2047	1541455.736	734172.4858	1.11	0.00
2048	1541453.892	734173.2652	1.00	0.00
2049	1541452.049	734174.0315	0.88	0.00
2050	1541450.212	734174.7689	0.75	0.00
2051	1541448.393	734175.3611	0.63	0.00
2052	1541446.562	734176.0365	0.51	0.00
2053	1541444.749	734176.5755	0.38	0.00
2054	1541442.932	734177.1423	0.25	0.00
2055	1541441.064	734178.1096	0.17	0.00
2056	1541439.269	734178.4927	0.13	0.00
2057	1541437.486	734178.7909	0.00	0.00
2058	1541435.628	734179.6785	0.00	0.00
2059	1541433.823	734180.1443	0.00	0.00
2060	1541432.042	734180.4316	0.00	0.00
2061	1541430.19	734181.275	0.00	0.00
2062	1541428.347	734182.0516	0.00	0.00
2063	1541426.498	734182.8656	0.00	0.00
2064	1541424.615	734183.9507	0.00	0.00
2065	1541422.963	734183.2032	0.00	0.00
2066	1541421.094	734184.1628	0.00	0.00
2067	1541419.419	734183.5977	0.00	0.00
2068	1541355.432	734116.8202	0.96	0.00
2069	1541356.03	734115.0095	0.88	0.00
2070	1541356.385	734113.2245	0.88	0.00
2071	1541356.696	734111.4471	0.83	0.00
2072	1541357.037	734109.6713	0.73	0.00
2073	1541355.94	734108.0943	0.46	0.00
2074	1541354.895	734106.5999	0.42	0.00
2075	1541355.213	734105.0824	0.40	0.00
2076	1541355.689	734103.4801	0.38	0.00
2077	1541356.344	734101.762	0.39	0.00
2078	1541356.72	734100.0278	0.32	0.00
2079	1541357.1	734098.289	0.26	0.00
2080	1541357.77	734096.5419	0.23	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5852	1541410.671	734252.7302	0.03	0.00
5853	1541408.75	734253.2767	0.41	0.00
5854	1541406.6	734252.0782	1.31	0.00
5855	1541404.669	734252.6165	1.96	0.00
5856	1541402.8	734251.3379	2.81	0.00
5857	1541401.775	734249.8272	3.37	0.00
5858	1541401.164	734248.2005	3.80	0.00
5859	1541400.588	734246.5651	4.21	0.00
5860	1541399.671	734245.0241	4.75	0.00
5861	1541398.137	734243.6534	5.15	0.00
5862	1541396.582	734242.2883	5.16	0.00
5863	1541394.641	734241.0306	5.11	0.00
5864	1541392.797	734239.7453	4.63	0.00
5865	1541391.388	734238.3399	4.31	0.00
5866	1541389.98	734236.9329	4.08	0.00
5867	1541388.303	734235.5996	3.91	0.00
5868	1541386.574	734234.2798	3.76	0.00
5869	1541385.179	734232.8671	3.36	0.00
5870	1541383.285	734231.5924	2.73	0.00
5871	1541337.882	734183.7721	1.01	0.00
5872	1541336.162	734182.591	0.00	0.00
5873	1541334.485	734181.567	0.00	0.00
5874	1541332.792	734180.462	0.00	0.00
5875	1541489.508	734233.987	0.00	0.00
5876	1541487.041	734234.8415	0.00	0.00
5877	1541484.789	734234.7483	0.00	0.00
5878	1541482.817	734234.3491	0.00	0.00
5879	1541481.438	734235.7501	0.00	0.00
5880	1541479.436	734235.0858	0.08	0.00
5881	1541477.493	734235.748	0.31	0.00
5882	1541475.371	734236.1403	0.49	0.00
5883	1541473.385	734236.5189	0.68	0.00
5884	1541471.437	734236.9046	0.87	0.00
5885	1541469.632	734237.0836	1.08	0.00
5886	1541467.963	734237.7911	1.22	0.00
5887	1541466.095	734238.4375	1.65	0.00
5888	1541464.266	734239.2277	1.89	0.00
5889	1541462.477	734240.1175	2.24	0.00
5890	1541460.731	734241.0942	1.94	0.00
5891	1541459.014	734242.158	3.89	0.00
5892	1541457.128	734243.2984	4.19	0.00
5893	1541455.456	734244.7052	2.81	0.00
5894	1541453.849	734245.9428	1.71	0.00
5895	1541452.261	734247.1603	0.82	0.00
5896	1541450.664	734248.3603	0.00	-0.02
5897	1541449.074	734249.5716	0.00	-0.75
5898	1541446.758	734249.2233	0.00	-2.09
5899	1541444.611	734248.7835	0.00	-3.36
5900	1541443.119	734250.1075	0.00	-3.74
5901	1541441.062	734249.6839	0.00	-4.92
5902	1541439.645	734251.089	0.00	-5.06
5903	1541437.744	734250.6133	0.00	-6.07
5904	1541436.426	734252.1114	0.00	-5.84
5905	1541435.193	734253.6786	0.00	-5.26
5906	1541433.114	734253.6364	0.00	-5.36
5907	1541432.036	734255.2874	0.00	-4.42
5908	1541429.944	734255.6543	0.00	-4.15
5909	1541428.651	734254.4932	0.00	-4.67
5910	1541426.507	734254.9042	0.00	-4.39
5911	1541424.47	734255.2459	0.00	-4.22
5912	1541422.721	734255.0244	0.00	-4.41
5913	1541422.006	734256.9057	0.00	-3.54
5914	1541420.364	734256.3989	0.00	-3.87
5915	1541418.658	734256.0411	0.00	-4.05
5916	1541416.886	734256.0826	0.00	-3.57
5917	1541415.068	734256.552	0.00	-2.50
5918	1541413.695	734255.519	0.00	-1.97
5919	1541411.962	734256.1343	0.00	-0.78
5920	1541410.548	734254.5816	0.00	-0.24
5921	1541408.622	734255.0993	0.36	0.00
5922	1541406.818	734253.8124	1.09	0.00
5923	1541404.89	734254.3548	1.76	0.00
5924	1541402.735	734253.1477	2.58	0.00
5925	1541400.873	734251.8729	3.41	0.00
5926	1541399.85	734250.36	3.97	0.00
5927	1541399.238	734248.7337	4.32	0.00
5928	1541398.662	734247.098	4.61	0.00
5929	1541397.746	734245.5566	4.95	0.00
5930	1541396.212	734244.1857	5.15	0.00
5931	1541394.656	734242.8205	5.16	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2081	1541358.749	734094.7871	0.17	0.00
2082	1541494.765	734091.6416	0.05	0.00
2083	1541495.709	734093.3525	0.00	-0.12
2084	1541497.1	734095.0529	0.00	-0.28
2085	1541498.748	734096.7473	0.00	-0.51
2086	1541500.216	734098.4464	0.00	-0.73
2087	1541501.165	734100.1568	0.00	-0.98
2088	1541501.644	734101.8774	0.00	-1.22
2089	1541501.989	734103.6009	0.00	-1.43
2090	1541502.658	734105.3167	0.00	-2.32
2091	1541501.765	734107.0699	0.00	-3.70
2092	1541500.725	734108.8264	0.00	-4.58
2093	1541501.404	734110.5425	0.00	-5.19
2094	1541502.058	734112.2593	0.00	-5.82
2095	1541500.778	734114.0217	0.00	-6.49
2096	1541500.037	734115.771	0.00	-6.56
2097	1541499.786	734117.5079	0.00	-6.56
2098	1541499.46	734119.2466	0.00	-6.55
2099	1541498.588	734120.9974	0.00	-6.62
2100	1541497.464	734122.7545	0.00	-6.72
2101	1541496.374	734124.5124	0.00	-6.61
2102	1541497.229	734126.2235	0.00	-6.08
2103	1541495.972	734127.9822	0.00	-5.61
2104	1541496.677	734129.6954	0.00	-5.12
2105	1541495.396	734131.4568	0.00	-4.73
2106	1541496.087	734133.1715	0.00	-4.48
2107	1541494.768	734134.9359	0.00	-4.25
2108	1541495.435	734136.6405	0.00	-4.13
2109	1541494.108	734138.3626	0.00	-4.03
2110	1541495.085	734139.8747	0.00	-4.01
2111	1541496.168	734141.3415	0.00	-3.92
2112	1541494.977	734142.9501	0.00	-3.90
2113	1541493.771	734144.5469	0.00	-3.86
2114	1541492.556	734146.1376	0.00	-3.56
2115	1541493.603	734147.6165	0.00	-3.13
2116	1541494.663	734149.0752	0.00	-2.76
2117	1541493.451	734150.6633	0.00	-2.81
2118	1541492.261	734152.2667	0.00	-2.83
2119	1541491.102	734153.8934	0.00	-2.83
2120	1541489.985	734155.5486	0.00	-2.81
2121	1541488.916	734157.2353	0.00	-2.78
2122	1541487.899	734158.9541	0.00	-2.75
2123	1541486.934	734160.703	0.00	-2.81
2124	1541486.017	734162.4775	0.00	-2.86
2125	1541483.941	734162.7746	0.00	-3.47
2126	1541481.888	734163.0256	0.00	-4.16
2127	1541480.999	734164.8195	0.00	-4.26
2128	1541478.882	734165.1395	0.00	-4.95
2129	1541476.775	734165.3978	0.00	-4.41
2130	1541474.654	734165.623	0.00	-3.60
2131	1541472.441	734166.4515	0.00	-2.85
2132	1541470.478	734167.8179	0.00	-2.11
2133	1541468.52	734168.3029	0.00	-1.31
2134	1541468.239	734170.2558	0.00	-1.12
2135	1541466.448	734170.6128	0.00	-0.53
2136	1541464.631	734171.0905	0.00	-0.21
2137	1541462.853	734171.3696	0.08	0.00
2138	1541461.014	734172.1101	0.39	0.00
2139	1541459.144	734173.0992	0.73	0.00
2140	1541457.33	734173.6544	1.04	0.00
2141	1541455.485	734174.4657	1.18	0.00
2142	1541453.641	734175.2475	1.06	0.00
2143	1541451.798	734176.0167	0.94	0.00
2144	1541449.96	734176.7518	0.82	0.00
2145	1541448.142	734177.3422	0.69	0.00
2146	1541446.311	734178.0191	0.57	0.00
2147	1541444.498	734178.5585	0.44	0.00
2148	1541442.681	734179.1258	0.32	0.00
2149	1541440.812	734180.0945	0.21	0.00
2150	1541439.018	734180.477	0.12	0.00
2151	1541437.235	734180.7744	0.04	0.00
2152	1541435.377	734181.6624	0.00	0.00
2153	1541433.572	734182.1288	0.00	0.00
2154	1541431.791	734182.415	0.00	0.00
2155	1541429.94	734183.2574	0.00	0.00
2156	1541428.096	734184.035	0.00	0.00
2157	1541426.248	734184.8494	0.00	0.00
2158	1541424.364	734185.9356	0.00	0.00
2159	1541422.712	734185.1887	0.00	0.00
2160	1541420.843	734186.1487	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
5932	1541392.715	734241.5623	5.18	0.00
5933	1541390.873	734240.2767	4.78	0.00
5934	1541389.462	734238.8716	4.49	0.00
5935	1541388.054	734237.4647	4.27	0.00
5936	1541386.376	734236.1318	4.11	0.00
5937	1541384.645	734234.8122	3.97	0.00
5938	1541383.25	734233.3998	3.68	0.00
5939	1541381.356	734232.125	3.03	0.00
5940	1541337.934	734185.7722	1.47	0.00
5941	1541336.206	734184.5914	0.00	0.00
5942	1541334.517	734183.5669	0.00	0.00
5943	1541332.816	734182.4626	0.00	0.00
5944	1541488.518	734235.7192	0.00	0.00
5945	1541487.264	734237.2775	0.00	0.00
5946	1541485.603	734236.5186	0.00	0.00
5947	1541483.457	734236.2711	0.00	0.00
5948	1541481.882	734237.7656	0.00	0.00
5949	1541479.752	734236.7621	0.00	0.00
5950	1541478.137	734237.5398	0.03	0.00
5951	1541476.302	734237.7302	0.21	0.00
5952	1541474.357	734238.1063	0.40	0.00
5953	1541472.366	734238.4533	0.60	0.00
5954	1541470.179	734238.7908	0.82	0.00
5955	1541468.127	734239.5105	0.99	0.00
5956	1541466.227	734240.2163	1.23	0.00
5957	1541464.408	734241.0507	1.24	0.00
5958	1541462.639	734241.9788	1.10	0.00
5959	1541460.912	734242.9829	1.34	0.00
5960	1541459.207	734244.0519	4.14	0.00
5961	1541457.592	734245.2032	4.77	0.00
5962	1541456.019	734246.4455	2.88	0.00
5963	1541454.447	734247.6774	1.95	0.00
5964	1541452.855	734248.8835	1.18	0.00
5965	1541451.251	734250.0756	0.50	0.00
5966	1541449.663	734251.2918	0.00	-0.05
5967	1541447.517	734250.8229	0.00	-1.26
5968	1541445.236	734250.5147	0.00	-2.51
5969	1541443.757	734251.8557	0.00	-2.81
5970	1541441.671	734251.4796	0.00	-3.97
5971	1541440.277	734252.9043	0.00	-4.07
5972	1541438.29	734252.5525	0.00	-5.02
5973	1541437.011	734254.0906	0.00	-4.70
5974	1541435.829	734255.7262	0.00	-4.09
5975	1541434.088	734255.3153	0.00	-4.46
5976	1541432.968	734256.763	0.00	-3.67
5977	1541431.101	734257.0844	0.00	-3.44
5978	1541429.057	734257.4817	0.00	-3.17
5979	1541427.751	734256.252	0.00	-3.75
5980	1541425.69	734256.727	0.00	-3.48
5981	1541423.716	734257.1209	0.00	-3.32
5982	1541422.881	734259.1572	0.00	-2.34
5983	1541421.064	734258.7058	0.00	-2.54
5984	1541419.595	734258.0689	0.00	-2.88
5985	1541418.053	734257.9671	0.00	-2.95
5986	1541416.199	734257.9364	0.00	-2.40
5987	1541413.76	734257.9157	0.00	-1.26
5988	1541411.488	734258.0278	0.00	-0.72
5989	1541410.009	734256.503	0.00	-0.19
5990	1541408.061	734256.91	0.46	0.00
5991	1541406.696	734255.614	1.10	0.00
5992	1541404.778	734256.1862	1.78	0.00
5993	1541402.952	734254.8565	2.43	0.00
5994	1541400.802	734253.6915	3.18	0.00
5995	1541398.947	734252.4057	3.83	0.00
5996	1541397.925	734250.8926	4.17	0.00
5997	1541397.312	734249.2665	4.48	0.00
5998	1541396.736	734247.6305	4.79	0.00
5999	1541395.821	734246.0888	5.12	0.00
6000	1541394.286	734244.7178	5.15	0.00
6001	1541392.729	734243.3526	5.16	0.00
6002	1541390.79	734242.0939	5.18	0.00
6003	1541388.948	734240.808	4.93	0.00
6004	1541387.536	734239.4032	4.66	0.00
6005	1541386.128	734237.9964	4.45	0.00
6006	1541384.448	734236.6639	4.30	0.00
6007	1541382.717	734235.3446	4.16	0.00
6008	1541381.321	734233.9324	4.00	0.00
6009	1541379.428	734232.6575	3.35	0.00
6010	1541337.985	734187.7723	1.25	0.00
6011	1541336.251	734186.5921	0.00	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2161	1541419.168	734185.5827	0.00	0.00
2162	1541353.445	734117.054	1.07	0.00
2163	1541354.053	734115.2608	1.55	0.00
2164	1541354.408	734113.4795	0.76	0.00
2165	1541354.717	734111.7041	0.67	0.00
2166	1541355.056	734109.9253	0.52	0.00
2167	1541353.966	734108.363	0.42	0.00
2168	1541352.929	734106.8387	0.38	0.00
2169	1541353.246	734105.1896	0.37	0.00
2170	1541353.696	734103.5356	0.35	0.00
2171	1541354.346	734101.8093	0.32	0.00
2172	1541354.722	734100.0741	0.30	0.00
2173	1541355.101	734098.3351	0.25	0.00
2174	1541355.772	734096.5881	0.19	0.00
2175	1541356.749	734094.8334	0.15	0.00
2176	1541496.765	734091.5954	0.00	-0.01
2177	1541497.708	734093.3063	0.00	-0.17
2178	1541499.1	734095.0066	0.00	-0.33
2179	1541500.748	734096.7011	0.00	-0.48
2180	1541502.215	734098.4001	0.00	-0.68
2181	1541503.163	734100.1105	0.00	-0.91
2182	1541503.641	734101.8311	0.00	-1.13
2183	1541503.988	734103.5545	0.00	-1.31
2184	1541504.658	734105.2702	0.00	-2.45
2185	1541503.764	734107.0233	0.00	-3.79
2186	1541502.723	734108.7798	0.00	-4.48
2187	1541503.403	734110.4957	0.00	-5.12
2188	1541504.058	734112.2124	0.00	-5.75
2189	1541502.776	734113.9749	0.00	-6.28
2190	1541502.035	734115.7241	0.00	-6.31
2191	1541501.783	734117.4609	0.00	-6.29
2192	1541501.456	734119.1996	0.00	-6.26
2193	1541500.586	734120.9503	0.00	-6.32
2194	1541499.464	734122.7073	0.00	-6.42
2195	1541498.372	734124.4652	0.00	-6.54
2196	1541499.223	734126.1763	0.00	-6.05
2197	1541497.969	734127.935	0.00	-5.58
2198	1541498.674	734129.6481	0.00	-5.18
2199	1541497.393	734131.4093	0.00	-4.82
2200	1541498.087	734133.1241	0.00	-4.58
2201	1541496.771	734134.888	0.00	-4.32
2202	1541497.524	734136.5509	0.00	-4.23
2203	1541496.289	734138.2344	0.00	-4.08
2204	1541497.342	734139.7223	0.00	-4.00
2205	1541498.408	734141.2151	0.00	-3.86
2206	1541497.229	734142.8318	0.00	-3.77
2207	1541496.032	734144.4359	0.00	-3.72
2208	1541494.821	734146.0288	0.00	-3.44
2209	1541495.881	734147.4929	0.00	-3.02
2210	1541496.911	734148.9916	0.00	-2.66
2211	1541495.69	734150.5727	0.00	-2.46
2212	1541494.481	734152.1627	0.00	-2.50
2213	1541493.296	734153.7713	0.00	-2.51
2214	1541492.148	734155.4061	0.00	-2.51
2215	1541491.046	734157.072	0.00	-2.49
2216	1541489.996	734158.7712	0.00	-2.45
2217	1541489.001	734160.5034	0.00	-2.42
2218	1541488.059	734162.2654	0.00	-2.41
2219	1541487.162	734164.0507	0.00	-2.42
2220	1541485.133	734164.2687	0.00	-2.89
2221	1541483.059	734164.5713	0.00	-3.57
2222	1541482.168	734166.363	0.00	-3.61
2223	1541480.087	734166.6001	0.00	-4.29
2224	1541477.946	734166.9086	0.00	-4.66
2225	1541475.844	734167.1438	0.00	-4.03
2226	1541473.932	734167.3454	0.00	-3.37
2227	1541472.424	734168.8649	0.00	-2.86
2228	1541470.154	734169.8114	0.00	-1.93
2229	1541469.66	734171.7577	0.00	-1.67
2230	1541467.995	734172.252	0.00	-0.92
2231	1541466.166	734172.582	0.00	-0.40
2232	1541464.384	734173.0837	0.00	-0.10
2233	1541462.601	734173.3543	0.20	0.00
2234	1541460.763	734174.0919	0.51	0.00
2235	1541458.893	734175.0816	0.84	0.00
2236	1541457.079	734175.6363	1.13	0.00
2237	1541455.234	734176.4456	1.24	0.00
2238	1541453.39	734177.2298	1.12	0.00
2239	1541451.546	734178.0019	1.01	0.00
2240	1541449.709	734178.7347	0.88	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6012	1541334.55	734185.5667	0.00	0.00
6013	1541332.84	734184.4633	0.00	0.00
6014	1541485.989	734238.8191	0.00	0.00
6015	1541484.25	734238.0022	0.00	0.00
6016	1541483.021	734239.3307	0.00	0.00
6017	1541481.315	734239.9666	0.00	0.00
6018	1541479.898	734238.6555	0.00	0.00
6019	1541477.934	734239.2385	0.00	0.00
6020	1541475.971	734239.5963	0.05	0.00
6021	1541473.999	734239.921	0.24	0.00
6022	1541472.011	734240.2324	0.45	0.00
6023	1541470.075	734240.6567	0.63	0.00
6024	1541468.17	734241.2697	0.71	0.00
6025	1541466.323	734242.0262	0.78	0.00
6026	1541464.532	734242.9046	1.11	0.00
6027	1541462.782	734243.8655	1.14	0.00
6028	1541461.069	734244.8955	2.44	0.00
6029	1541459.414	734246.0152	3.79	0.00
6030	1541457.822	734247.2231	3.36	0.00
6031	1541456.261	734248.4704	2.54	0.00
6032	1541454.68	734249.6885	2.04	0.00
6033	1541453.071	734250.8738	1.35	0.00
6034	1541451.466	734252.065	0.84	0.00
6035	1541449.902	734253.3073	0.36	0.00
6036	1541448.121	734252.5606	0.00	-0.48
6037	1541446	734252.1188	0.00	-1.61
6038	1541444.533	734253.4769	0.00	-1.87
6039	1541442.326	734253.245	0.00	-2.99
6040	1541440.953	734254.6903	0.00	-3.03
6041	1541438.952	734254.394	0.00	-3.96
6042	1541437.725	734255.9634	0.00	-3.58
6043	1541436.597	734257.614	0.00	-2.96
6044	1541434.584	734257.5274	0.00	-3.22
6045	1541432.374	734258.458	0.00	-2.71
6046	1541430.32	734258.902	0.00	-2.46
6047	1541428.34	734259.3415	0.00	-2.20
6048	1541426.979	734258.0912	0.00	-2.81
6049	1541424.969	734258.6053	0.00	-2.56
6050	1541424.416	734260.4983	0.00	-1.68
6051	1541422.529	734261.2839	0.00	-1.40
6052	1541420.879	734260.6715	0.00	-1.60
6053	1541419.143	734260.1095	0.00	-1.75
6054	1541417.441	734259.5943	0.00	-1.84
6055	1541415.771	734259.6641	0.00	-1.48
6056	1541414.056	734259.902	0.00	-1.24
6057	1541412.277	734259.7144	0.00	-0.86
6058	1541410.305	734259.8111	0.00	-0.56
6059	1541409.48	734258.2161	0.00	-0.13
6060	1541407.518	734258.3992	0.56	0.00
6061	1541406.06	734257.3314	1.24	0.00
6062	1541403.768	734258.0777	2.09	0.00
6063	1541402.904	734256.481	2.41	0.00
6064	1541401.007	734255.453	3.07	0.00
6065	1541398.871	734254.2236	3.57	0.00
6066	1541397.019	734252.9387	3.99	0.00
6067	1541396	734251.4246	4.33	0.00
6068	1541395.385	734249.7988	4.64	0.00
6069	1541394.81	734248.1626	4.95	0.00
6070	1541393.896	734246.6206	5.14	0.00
6071	1541392.361	734245.2495	5.15	0.00
6072	1541390.803	734243.8844	5.17	0.00
6073	1541388.865	734242.6253	5.18	0.00
6074	1541387.024	734241.3391	5.07	0.00
6075	1541385.611	734239.9346	4.81	0.00
6076	1541384.202	734238.528	4.62	0.00
6077	1541382.521	734237.1959	4.48	0.00
6078	1541380.789	734235.877	4.35	0.00
6079	1541379.392	734234.465	4.20	0.00
6080	1541377.499	734233.1901	3.68	0.00
6081	1541338.037	734189.7723	1.02	0.00
6082	1541336.295	734188.5927	0.52	0.00
6083	1541334.582	734187.5664	0.00	0.00
6084	1541332.864	734186.4639	0.00	0.00
6085	1541484.621	734240.2789	0.00	0.00
6086	1541482.873	734241.2499	0.00	0.00
6087	1541481.059	734242.0594	0.00	0.00
6088	1541479.474	734240.638	0.00	0.00
6089	1541477.527	734241.0933	0.00	0.00
6090	1541475.565	734241.4327	0.00	0.00
6091	1541473.587	734241.7293	0.10	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2241	1541447.891	734179.3233	0.76	0.00
2242	1541446.06	734180.0016	0.63	0.00
2243	1541444.247	734180.5416	0.51	0.00
2244	1541442.43	734181.1092	0.38	0.00
2245	1541440.561	734182.0794	0.28	0.00
2246	1541438.767	734182.4612	0.17	0.00
2247	1541436.984	734182.7579	0.09	0.00
2248	1541435.126	734183.6463	0.02	0.00
2249	1541433.321	734184.1132	0.00	0.00
2250	1541431.54	734184.3983	0.00	0.00
2251	1541429.689	734185.2398	0.00	0.00
2252	1541427.846	734186.0184	0.00	0.00
2253	1541425.997	734186.8331	0.00	0.00
2254	1541424.113	734187.9205	0.00	0.00
2255	1541422.461	734187.1741	0.00	0.00
2256	1541420.592	734188.1346	0.00	0.00
2257	1541418.917	734187.5676	0.00	0.00
2258	1541351.495	734117.3292	0.10	0.00
2259	1541352.105	734115.5884	0.36	0.00
2260	1541352.444	734113.8054	0.39	0.00
2261	1541352.749	734112.024	0.28	0.00
2262	1541353.081	734110.2366	0.39	0.00
2263	1541351.996	734108.733	0.37	0.00
2264	1541350.986	734107.1811	0.38	0.00
2265	1541351.283	734105.3206	0.34	0.00
2266	1541351.704	734103.5933	0.32	0.00
2267	1541352.349	734101.8567	0.30	0.00
2268	1541352.724	734100.1202	0.28	0.00
2269	1541353.103	734098.3812	0.19	0.00
2270	1541353.773	734096.6343	0.19	0.00
2271	1541354.749	734094.8796	0.12	0.00
2272	1541498.766	734091.5491	0.00	-0.04
2273	1541499.707	734093.2601	0.00	-0.21
2274	1541501.099	734094.9603	0.00	-0.36
2275	1541502.749	734096.6548	0.00	-0.45
2276	1541504.214	734098.3538	0.00	-0.63
2277	1541505.162	734100.0641	0.00	-0.83
2278	1541505.639	734101.7847	0.00	-1.01
2279	1541505.986	734103.508	0.00	-1.22
2280	1541506.657	734105.2236	0.00	-2.60
2281	1541505.763	734106.9767	0.00	-3.76
2282	1541504.722	734108.7331	0.00	-4.43
2283	1541505.402	734110.4489	0.00	-5.08
2284	1541506.058	734112.1655	0.00	-5.74
2285	1541504.774	734113.928	0.00	-6.06
2286	1541504.033	734115.6771	0.00	-6.05
2287	1541503.78	734117.4139	0.00	-6.01
2288	1541503.452	734119.1525	0.00	-5.99
2289	1541502.584	734120.9031	0.00	-6.02
2290	1541501.464	734122.6601	0.00	-6.11
2291	1541500.369	734124.418	0.00	-6.20
2292	1541501.218	734126.129	0.00	-5.99
2293	1541499.965	734127.8876	0.00	-5.64
2294	1541500.672	734129.6006	0.00	-5.31
2295	1541499.39	734131.3621	0.00	-4.92
2296	1541500.089	734133.0768	0.00	-4.70
2297	1541498.795	734134.8269	0.00	-4.44
2298	1541499.672	734136.4376	0.00	-4.35
2299	1541498.501	734138.0891	0.00	-4.14
2300	1541499.57	734139.5859	0.00	-3.99
2301	1541500.638	734141.0774	0.00	-3.87
2302	1541499.474	734142.7002	0.00	-3.71
2303	1541498.293	734144.3102	0.00	-3.59
2304	1541497.094	734145.9069	0.00	-3.29
2305	1541498.13	734147.4089	0.00	-2.95
2306	1541499.173	734148.8947	0.00	-2.62
2307	1541497.951	734150.4734	0.00	-2.32
2308	1541496.729	734152.0531	0.00	-2.18
2309	1541495.522	734153.6448	0.00	-2.21
2310	1541494.346	734155.2585	0.00	-2.22
2311	1541493.21	734156.9014	0.00	-2.21
2312	1541492.125	734158.5778	0.00	-2.18
2313	1541491.096	734160.2891	0.00	-2.13
2314	1541490.125	734162.0339	0.00	-2.11
2315	1541489.206	734163.8076	0.00	-2.10
2316	1541488.328	734165.6014	0.00	-2.08
2317	1541486.29	734165.8483	0.00	-2.42
2318	1541484.258	734166.0639	0.00	-2.93
2319	1541483.362	734167.8482	0.00	-2.95
2320	1541481.241	734168.1364	0.00	-3.61

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6092	1541471.624	734242.0572	0.29	0.00
6093	1541469.684	734242.5352	0.44	0.00
6094	1541467.812	734243.2271	0.34	0.00
6095	1541466.005	734244.0721	0.37	0.00
6096	1541464.245	734245.0075	1.09	0.00
6097	1541462.518	734246.0135	1.49	0.00
6098	1541460.843	734247.091	2.83	0.00
6099	1541459.231	734248.2901	2.79	0.00
6100	1541457.691	734249.5592	1.98	0.00
6101	1541456.124	734250.7863	1.39	0.00
6102	1541454.513	734251.9677	1.32	0.00
6103	1541452.897	734253.1388	1.26	0.00
6104	1541451.304	734254.3582	1.04	0.00
6105	1541449.767	734255.6783	0.72	0.00
6106	1541448.41	734254.6126	0.02	0.00
6107	1541446.615	734253.8583	0.00	-0.86
6108	1541445.147	734255.2509	0.00	-1.10
6109	1541443.11	734254.8816	0.00	-2.06
6110	1541441.763	734256.3437	0.00	-2.07
6111	1541439.664	734256.2101	0.00	-2.88
6112	1541438.49	734257.8216	0.00	-2.46
6113	1541437.468	734259.5351	0.00	-1.80
6114	1541435.654	734259.3435	0.00	-2.16
6115	1541433.734	734259.546	0.00	-2.15
6116	1541431.609	734260.2757	0.00	-1.75
6117	1541429.662	734260.7838	0.00	-1.50
6118	1541427.759	734261.2502	0.00	-1.29
6119	1541426.347	734259.9802	0.00	-1.89
6120	1541425.846	734261.9105	0.00	-0.85
6121	1541423.995	734262.4622	0.00	-0.43
6122	1541422.128	734263.2935	0.00	0.00
6123	1541420.732	734262.4998	0.00	-0.68
6124	1541419.029	734262.3973	0.00	-0.95
6125	1541417.157	734261.4223	0.00	-1.24
6126	1541415.051	734261.4705	0.00	-1.07
6127	1541413.01	734261.4954	0.00	-0.84
6128	1541411.03	734261.5133	0.00	-0.53
6129	1541409.029	734261.5684	0.00	-0.31
6130	1541408.31	734259.8884	0.12	0.00
6131	1541406.31	734259.9701	0.81	0.00
6132	1541405.609	734258.6182	1.26	0.00
6133	1541404.271	734259.9645	1.58	0.00
6134	1541402.239	734259.7613	2.41	0.00
6135	1541401.246	734257.586	2.86	0.00
6136	1541399.155	734255.9956	3.30	0.00
6137	1541396.947	734254.7611	3.73	0.00
6138	1541395.093	734253.4718	4.14	0.00
6139	1541394.075	734251.9564	4.49	0.00
6140	1541393.458	734250.331	4.80	0.00
6141	1541392.884	734248.6944	5.11	0.00
6142	1541391.971	734247.1521	5.14	0.00
6143	1541390.435	734245.7811	5.15	0.00
6144	1541388.877	734244.416	5.17	0.00
6145	1541386.94	734243.1565	5.18	0.00
6146	1541385.099	734241.87	5.20	0.00
6147	1541383.685	734240.4659	4.96	0.00
6148	1541382.276	734239.0595	4.78	0.00
6149	1541380.594	734237.7279	4.64	0.00
6150	1541378.861	734236.4092	4.52	0.00
6151	1541377.463	734234.9976	4.39	0.00
6152	1541375.571	734233.7226	3.99	0.00
6153	1541338.088	734191.7724	0.77	0.00
6154	1541336.339	734190.5934	1.44	0.00
6155	1541334.614	734189.5661	0.00	0.00
6156	1541332.888	734188.4645	0.00	0.00
6157	1541479.12	734242.5494	0.00	0.00
6158	1541477.164	734242.9588	0.00	0.00
6159	1541475.183	734243.2438	0.00	0.00
6160	1541473.203	734243.5288	0.00	0.00
6161	1541471.223	734243.8138	0.15	0.00
6162	1541469.332	734244.4097	0.08	0.00
6163	1541467.502	734245.2193	0.02	0.00
6164	1541465.73	734246.1457	0.00	0.00
6165	1541463.98	734247.1164	0.87	0.00
6166	1541462.286	734248.1782	1.75	0.00
6167	1541460.621	734249.2866	1.96	0.00
6168	1541459.137	734250.6291	1.54	0.00
6169	1541457.594	734251.897	0.70	0.00
6170	1541455.967	734253.0617	0.50	0.00
6171	1541454.34	734254.2264	0.67	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2321	1541479.129	734168.3591	0.00	-4.28
2322	1541476.947	734168.656	0.00	-4.22
2323	1541474.768	734168.9031	0.00	-3.67
2324	1541473.741	734170.5561	0.00	-3.30
2325	1541471.66	734170.8484	0.00	-2.52
2326	1541470.896	734172.5575	0.00	-2.16
2327	1541469.403	734174.0118	0.00	-1.47
2328	1541467.548	734174.038	0.00	-0.62
2329	1541465.932	734174.6314	0.00	-0.27
2330	1541464.127	734175.0688	0.03	0.00
2331	1541462.348	734175.3407	0.32	0.00
2332	1541460.512	734176.0739	0.61	0.00
2333	1541458.642	734177.064	0.92	0.00
2334	1541456.828	734177.6182	1.20	0.00
2335	1541454.983	734178.4255	1.31	0.00
2336	1541453.139	734179.212	1.19	0.00
2337	1541451.295	734179.9871	1.07	0.00
2338	1541449.458	734180.7175	0.94	0.00
2339	1541447.64	734181.3043	0.82	0.00
2340	1541445.809	734181.9841	0.70	0.00
2341	1541443.996	734182.5245	0.57	0.00
2342	1541442.179	734183.0926	0.45	0.00
2343	1541440.31	734184.0642	0.34	0.00
2344	1541438.516	734184.4454	0.23	0.00
2345	1541436.733	734184.7413	0.14	0.00
2346	1541434.875	734185.6301	0.07	0.00
2347	1541433.07	734186.0976	0.00	0.00
2348	1541431.289	734186.3815	0.00	0.00
2349	1541429.438	734187.2221	0.00	0.00
2350	1541427.595	734188.0016	0.00	0.00
2351	1541425.746	734188.8168	0.00	0.00
2352	1541423.862	734189.9053	0.00	0.00
2353	1541422.21	734189.1595	0.00	0.00
2354	1541420.341	734190.1205	0.00	0.00
2355	1541418.666	734189.5525	0.00	0.00
2356	1541351.043	734119.2781	0.00	-0.29
2357	1541349.579	734118.1114	0.00	-0.59
2358	1541350.162	734116.2294	0.00	-0.43
2359	1541350.568	734114.3732	0.00	-0.11
2360	1541350.822	734112.5025	0.10	0.00
2361	1541351.108	734110.6751	0.29	0.00
2362	1541349.952	734109.1837	0.29	0.00
2363	1541348.967	734107.2853	0.36	0.00
2364	1541349.337	734105.4646	0.32	0.00
2365	1541349.714	734103.6523	0.29	0.00
2366	1541350.352	734101.9041	0.28	0.00
2367	1541350.727	734100.1661	0.25	0.00
2368	1541351.105	734098.4272	0.23	0.00
2369	1541351.775	734096.6804	0.15	0.00
2370	1541352.749	734094.9259	0.11	0.00
2371	1541500.766	734091.5029	0.00	-0.06
2372	1541501.706	734093.2138	0.00	-0.16
2373	1541503.099	734094.9141	0.00	-0.27
2374	1541504.749	734096.6085	0.00	-0.36
2375	1541506.213	734098.3075	0.00	-0.51
2376	1541507.16	734100.0178	0.00	-0.71
2377	1541507.636	734101.7383	0.00	-0.90
2378	1541507.984	734103.4615	0.00	-1.42
2379	1541508.657	734105.177	0.00	-2.74
2380	1541507.762	734106.93	0.00	-3.74
2381	1541506.72	734108.6864	0.00	-4.41
2382	1541507.401	734110.4021	0.00	-5.07
2383	1541508.057	734112.1185	0.00	-5.76
2384	1541506.772	734113.881	0.00	-5.84
2385	1541506.031	734115.6301	0.00	-5.81
2386	1541505.778	734117.3668	0.00	-5.74
2387	1541505.447	734119.1054	0.00	-5.71
2388	1541504.581	734120.8559	0.00	-5.75
2389	1541503.464	734122.6127	0.00	-5.81
2390	1541502.366	734124.3707	0.00	-5.88
2391	1541503.213	734126.0817	0.00	-5.67
2392	1541501.962	734127.8402	0.00	-5.73
2393	1541502.669	734129.5532	0.00	-5.42
2394	1541501.385	734131.3148	0.00	-5.04
2395	1541502.111	734133.0168	0.00	-4.82
2396	1541500.868	734134.7448	0.00	-4.55
2397	1541501.853	734136.2983	0.00	-4.46
2398	1541500.718	734137.9481	0.00	-4.21
2399	1541501.788	734139.4444	0.00	-4.06
2400	1541502.844	734140.9587	0.00	-3.91

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6172	1541452.713	734255.3912	0.60	0.00
6173	1541451.178	734256.6671	0.42	0.00
6174	1541449.727	734258.0441	0.16	0.00
6175	1541448.093	734257.0542	0.47	0.00
6176	1541446.933	734255.6645	0.00	-0.29
6177	1541445.802	734257.0729	0.00	-0.31
6178	1541443.772	734256.6749	0.00	-1.15
6179	1541442.448	734258.163	0.00	-1.06
6180	1541440.508	734257.8912	0.00	-1.84
6181	1541439.398	734259.5433	0.00	-1.38
6182	1541438.477	734261.3011	0.00	-0.64
6183	1541436.619	734261.3556	0.00	-0.95
6184	1541434.903	734261.1756	0.00	-1.22
6185	1541432.992	734261.4159	0.00	-1.13
6186	1541431.024	734262.181	0.00	-0.55
6187	1541429.156	734262.7129	0.00	-0.13
6188	1541427.322	734263.1959	0.00	0.00
6189	1541425.484	734263.8782	0.00	0.00
6190	1541423.719	734264.4371	0.00	0.00
6191	1541421.959	734265.0378	0.00	0.00
6192	1541420.108	734264.4998	0.00	0.00
6193	1541418.225	734264.7117	0.00	0.00
6194	1541417.378	734263.2351	0.00	-0.59
6195	1541415.634	734263.1525	0.00	-0.71
6196	1541413.655	734263.1917	0.00	-0.82
6197	1541411.652	734263.2379	0.00	-0.67
6198	1541409.651	734263.2817	0.00	-0.46
6199	1541407.647	734263.3302	0.00	-0.15
6200	1541407.026	734261.6213	0.32	0.00
6201	1541405.018	734261.6596	1.00	0.00
6202	1541403.006	734261.6751	1.69	0.00
6203	1541401.024	734261.7035	2.08	0.00
6204	1541400.24	734259.7638	2.68	0.00
6205	1541399.102	734257.9055	3.06	0.00
6206	1541397.193	734256.4965	3.46	0.00
6207	1541395.009	734255.2906	3.89	0.00
6208	1541393.165	734254.0023	4.31	0.00
6209	1541392.149	734252.488	4.65	0.00
6210	1541391.532	734250.8623	4.96	0.00
6211	1541390.958	734249.2259	5.13	0.00
6212	1541390.045	734247.6833	5.14	0.00
6213	1541388.509	734246.3123	5.15	0.00
6214	1541386.951	734244.9473	5.17	0.00
6215	1541385.014	734243.6874	5.19	0.00
6216	1541383.175	734242.4007	5.20	0.00
6217	1541381.76	734240.9969	5.10	0.00
6218	1541380.35	734239.5908	4.93	0.00
6219	1541378.667	734238.2596	4.79	0.00
6220	1541376.933	734236.9413	4.65	0.00
6221	1541375.534	734235.5301	4.44	0.00
6222	1541373.642	734234.2552	3.74	0.00
6223	1541338.139	734193.7725	0.51	0.00
6224	1541336.383	734192.5941	1.34	0.00
6225	1541334.646	734191.5659	0.00	0.00
6226	1541332.912	734190.4651	0.00	0.00
6227	1541448.275	734259.4211	0.00	-0.17
6228	1541446.603	734258.6848	0.22	0.00
6229	1541444.423	734258.4808	0.00	-0.29
6230	1541443.145	734259.995	0.00	-0.09
6231	1541441.252	734259.7458	0.00	-0.75
6232	1541440.244	734261.4689	0.00	-0.07
6233	1541439.469	734263.317	0.15	0.00
6234	1541437.745	734263.1193	0.09	0.00
6235	1541435.798	734263.3662	0.00	0.00
6236	1541434.137	734262.8109	0.00	0.00
6237	1541432.458	734263.3685	0.00	0.00
6238	1541430.597	734264.1333	0.00	0.00
6239	1541428.801	734264.6754	0.00	0.00
6240	1541427.022	734265.17	0.00	0.00
6241	1541425.234	734265.8946	0.00	0.00
6242	1541423.32	734266.3672	0.00	0.00
6243	1541421.024	734266.4579	0.00	0.00
6244	1541419.049	734266.485	0.00	0.00
6245	1541417.076	734266.5708	0.00	0.00
6246	1541416.253	734264.8965	0.00	0.00
6247	1541414.277	734264.9066	0.00	-0.14
6248	1541412.28	734264.9525	0.00	-0.28
6249	1541410.281	734264.9987	0.00	-0.36
6250	1541408.283	734265.0449	0.00	-0.50
6251	1541406.283	734265.0913	0.00	-0.06

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2401	1541501.69	734142.5897	0.00	-3.72
2402	1541500.522	734144.2097	0.00	-3.55
2403	1541499.335	734145.8162	0.00	-3.25
2404	1541500.384	734147.307	0.00	-2.92
2405	1541501.425	734148.8038	0.00	-2.59
2406	1541500.209	734150.385	0.00	-2.28
2407	1541498.983	734151.9588	0.00	-1.97
2408	1541497.762	734153.5364	0.00	-1.90
2409	1541496.562	734155.1298	0.00	-1.93
2410	1541495.396	734156.7487	0.00	-1.93
2411	1541494.276	734158.3998	0.00	-1.90
2412	1541493.211	734160.0867	0.00	-1.86
2413	1541492.206	734161.8099	0.00	-1.81
2414	1541491.26	734163.5665	0.00	-1.78
2415	1541490.365	734165.3499	0.00	-1.77
2416	1541489.502	734167.1491	0.00	-1.73
2417	1541487.463	734167.402	0.00	-2.06
2418	1541485.414	734167.6435	0.00	-2.42
2419	1541484.503	734169.4206	0.00	-2.43
2420	1541482.421	734169.6089	0.00	-2.99
2421	1541480.267	734169.8832	0.00	-3.63
2422	1541478.128	734170.0906	0.00	-4.16
2423	1541475.925	734170.3797	0.00	-3.86
2424	1541474.876	734172.0798	0.00	-3.53
2425	1541472.753	734172.2915	0.00	-2.94
2426	1541471.615	734174.0224	0.00	-2.49
2427	1541470.352	734175.7183	0.00	-1.90
2428	1541467.876	734175.9693	0.00	-0.65
2429	1541465.728	734176.563	0.00	-0.15
2430	1541463.88	734177.0477	0.15	0.00
2431	1541462.098	734177.3262	0.42	0.00
2432	1541460.262	734178.0555	0.71	0.00
2433	1541458.391	734179.0462	1.01	0.00
2434	1541456.577	734179.6	1.28	0.00
2435	1541454.733	734180.4053	1.37	0.00
2436	1541452.888	734181.1942	1.25	0.00
2437	1541451.043	734181.9721	1.13	0.00
2438	1541449.207	734182.7002	1.00	0.00
2439	1541447.389	734183.2853	0.88	0.00
2440	1541445.558	734183.9665	0.76	0.00
2441	1541443.745	734184.5074	0.64	0.00
2442	1541441.928	734185.0759	0.52	0.00
2443	1541440.059	734186.0489	0.41	0.00
2444	1541438.265	734186.4295	0.29	0.00
2445	1541436.482	734186.7246	0.20	0.00
2446	1541434.624	734187.6139	0.15	0.00
2447	1541432.819	734188.0819	0.08	0.00
2448	1541431.039	734188.3647	0.00	0.00
2449	1541429.188	734189.2044	0.00	0.00
2450	1541427.344	734189.9849	0.00	0.00
2451	1541425.495	734190.8004	0.00	0.00
2452	1541423.611	734191.8901	0.00	0.00
2453	1541421.959	734191.1449	0.00	0.00
2454	1541420.09	734192.1064	0.00	0.00
2455	1541418.415	734191.5375	0.00	0.00
2456	1541350.59	734121.2271	0.00	-0.59
2457	1541349.089	734120.0338	0.00	-0.88
2458	1541347.546	734119.0891	0.00	-1.05
2459	1541348.102	734117.1776	0.00	-0.72
2460	1541348.742	734115.3378	0.00	-0.38
2461	1541349.069	734113.3202	0.00	-0.02
2462	1541349.045	734111.354	0.12	0.00
2463	1541348.004	734110.0021	0.20	0.00
2464	1541347.916	734108.5948	0.32	0.00
2465	1541346.664	734107.2177	0.31	0.00
2466	1541347.311	734105.5102	0.30	0.00
2467	1541347.732	734103.7082	0.23	0.00
2468	1541348.357	734101.9506	0.25	0.00
2469	1541348.73	734100.2118	0.23	0.00
2470	1541349.108	734098.473	0.20	0.00
2471	1541349.778	734096.7265	0.18	0.00
2472	1541350.749	734094.9721	0.11	0.00
2473	1541502.766	734091.4566	0.01	0.00
2474	1541503.705	734093.1676	0.00	-0.14
2475	1541505.099	734094.8678	0.00	-0.27
2476	1541506.749	734096.5622	0.00	-0.35
2477	1541508.212	734098.2612	0.00	-0.44
2478	1541509.159	734099.9714	0.00	-0.62
2479	1541509.634	734101.6919	0.00	-0.78
2480	1541509.983	734103.415	0.00	-1.63
6252	1541405.641	734263.3752	0.47	0.00
6253	1541403.634	734263.4165	1.01	0.00
6254	1541401.631	734263.4616	1.32	0.00
6255	1541399.629	734263.5092	1.71	0.00
6256	1541399.038	734261.7652	2.55	0.00
6257	1541398.275	734259.97	2.87	0.00
6258	1541397.143	734258.3124	3.22	0.00
6259	1541395.248	734257.0132	3.62	0.00
6260	1541393.073	734255.8192	4.05	0.00
6261	1541391.237	734254.5371	4.47	0.00
6262	1541390.224	734253.0179	4.82	0.00
6263	1541389.605	734251.3939	5.13	0.00
6264	1541389.032	734249.757	5.14	0.00
6265	1541388.12	734248.2142	5.15	0.00
6266	1541386.583	734246.8432	5.17	0.00
6267	1541385.024	734245.4782	5.18	0.00
6268	1541383.089	734244.218	5.20	0.00
6269	1541381.251	734242.931	5.20	0.00
6270	1541379.835	734241.5276	5.22	0.00
6271	1541378.425	734240.1218	5.07	0.00
6272	1541376.74	734238.7911	4.91	0.00
6273	1541375.006	734237.4732	4.64	0.00
6274	1541373.606	734236.0625	4.36	0.00
6275	1541371.714	734234.7877	3.34	0.00
6276	1541338.191	734195.7725	0.19	0.00
6277	1541336.427	734194.5947	1.09	0.00
6278	1541334.678	734193.5656	0.08	0.00
6279	1541332.936	734192.4657	0.00	0.00
6280	1541446.865	734260.8391	0.00	-0.60
6281	1541445.209	734260.1398	0.00	-0.12
6282	1541443.962	734261.6576	0.00	-0.50
6283	1541442.014	734261.6309	0.14	0.00
6284	1541441.142	734263.4585	0.27	0.00
6285	1541440.415	734265.5078	0.39	0.00
6286	1541438.643	734265.1457	0.31	0.00
6287	1541437.074	734264.8087	0.25	0.00
6288	1541435.473	734265.5753	0.06	0.00
6289	1541433.957	734264.622	0.00	0.00
6290	1541432.134	734265.3209	0.00	0.00
6291	1541430.34	734266.1069	0.00	0.00
6292	1541428.589	734266.6597	0.00	0.00
6293	1541426.823	734267.169	0.00	0.00
6294	1541424.821	734268.0092	0.00	0.00
6295	1541422.442	734268.0565	0.00	0.00
6296	1541420.295	734268.1945	0.00	0.00
6297	1541418.291	734268.2754	0.00	0.00
6298	1541416.286	734268.3217	0.00	0.00
6299	1541415.069	734266.6238	0.00	0.00
6300	1541413.073	734266.6648	0.00	0.00
6301	1541411.075	734266.7113	0.00	0.00
6302	1541409.078	734266.7577	0.00	0.00
6303	1541407.081	734266.8041	0.00	-0.18
6304	1541405.083	734266.8506	0.00	-0.35
6305	1541404.283	734265.1368	0.33	0.00
6306	1541402.285	734265.1832	0.57	0.00
6307	1541400.286	734265.2302	0.88	0.00
6308	1541398.286	734265.2777	1.27	0.00
6309	1541397.625	734263.5596	2.28	0.00
6310	1541397.034	734261.8396	2.76	0.00
6311	1541396.309	734260.1584	3.07	0.00
6312	1541395.204	734258.7165	3.39	0.00
6313	1541393.271	734257.5196	3.79	0.00
6314	1541391.146	734256.3774	4.21	0.00
6315	1541389.312	734255.0628	4.64	0.00
6316	1541388.298	734253.5496	4.99	0.00
6317	1541387.678	734251.9245	5.14	0.00
6318	1541387.106	734250.2877	5.15	0.00
6319	1541386.195	734248.7447	5.16	0.00
6320	1541384.658	734247.3737	5.18	0.00
6321	1541383.098	734246.0088	5.19	0.00
6322	1541381.164	734244.7482	5.20	0.00
6323	1541379.327	734243.4609	5.20	0.00
6324	1541377.91	734242.0578	5.33	0.00
6325	1541376.5	734240.6523	5.15	0.00
6326	1541374.814	734239.3223	4.92	0.00
6327	1541373.078	734238.0049	4.59	0.00
6328	1541371.678	734236.5947	4.01	0.00
6329	1541369.785	734235.3202	2.78	0.00
6330	1541338.242	734197.7726	0.00	0.00
6331	1541336.472	734196.5954	0.84	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2481	1541510.656	734105.1303	0.00	-2.88
2482	1541509.761	734106.8833	0.00	-3.74
2483	1541508.718	734108.6396	0.00	-4.43
2484	1541509.4	734110.3551	0.00	-5.14
2485	1541510.057	734112.0715	0.00	-5.53
2486	1541508.77	734113.8339	0.00	-5.61
2487	1541508.028	734115.5829	0.00	-5.59
2488	1541507.775	734117.3196	0.00	-5.51
2489	1541507.443	734119.0581	0.00	-5.45
2490	1541506.579	734120.8085	0.00	-5.47
2491	1541505.464	734122.5653	0.00	-5.52
2492	1541504.363	734124.3234	0.00	-5.58
2493	1541505.207	734126.0342	0.00	-5.35
2494	1541503.959	734127.7926	0.00	-5.44
2495	1541504.665	734129.5055	0.00	-5.18
2496	1541503.383	734131.2669	0.00	-5.16
2497	1541504.175	734132.9346	0.00	-4.92
2498	1541502.999	734134.6322	0.00	-4.67
2499	1541504.048	734136.1531	0.00	-4.54
2500	1541502.924	734137.8021	0.00	-4.30
2501	1541503.984	734139.3186	0.00	-4.12
2502	1541505.049	734140.8237	0.00	-3.90
2503	1541503.905	734142.4608	0.00	-3.71
2504	1541502.749	734144.0888	0.00	-3.51
2505	1541501.576	734145.7052	0.00	-3.22
2506	1541502.622	734147.2082	0.00	-2.89
2507	1541503.611	734148.7873	0.00	-2.54
2508	1541502.405	734150.3788	0.00	-2.23
2509	1541501.181	734151.9564	0.00	-1.93
2510	1541499.95	734153.5294	0.00	-1.61
2511	1541498.729	734155.1105	0.00	-1.63
2512	1541497.536	734156.7119	0.00	-1.63
2513	1541496.383	734158.343	0.00	-1.62
2514	1541495.283	734160.0098	0.00	-1.59
2515	1541494.242	734161.7145	0.00	-1.55
2516	1541493.265	734163.4561	0.00	-1.49
2517	1541492.346	734165.23	0.00	-1.45
2518	1541491.474	734167.0272	0.00	-1.41
2519	1541490.62	734168.8335	0.00	-1.37
2520	1541488.641	734168.9485	0.00	-1.69
2521	1541486.581	734169.1931	0.00	-2.04
2522	1541485.651	734170.9595	0.00	-2.05
2523	1541483.54	734171.1699	0.00	-2.46
2524	1541481.429	734171.3419	0.00	-3.03
2525	1541479.248	734171.6052	0.00	-3.68
2526	1541477.092	734171.8033	0.00	-3.83
2527	1541476.031	734173.5019	0.00	-3.52
2528	1541473.801	734173.7842	0.00	-3.23
2529	1541472.698	734175.4799	0.00	-2.93
2530	1541471.625	734177.1547	0.00	-2.54
2531	1541469.33	734177.4613	0.00	-1.32
2532	1541467.241	734177.9526	0.00	-0.30
2533	1541465.393	734178.5258	0.00	-0.01
2534	1541463.614	734179.0422	0.28	0.00
2535	1541461.848	734179.3168	0.54	0.00
2536	1541460.01	734180.0372	0.82	0.00
2537	1541458.14	734181.0285	1.11	0.00
2538	1541456.326	734181.5818	1.38	0.00
2539	1541454.482	734182.3851	1.43	0.00
2540	1541452.637	734183.1763	1.31	0.00
2541	1541450.792	734183.9572	1.19	0.00
2542	1541448.956	734184.6829	1.07	0.00
2543	1541447.138	734185.2661	0.95	0.00
2544	1541445.307	734185.9489	0.83	0.00
2545	1541443.494	734186.4902	0.70	0.00
2546	1541441.677	734187.0591	0.58	0.00
2547	1541439.807	734188.0336	0.49	0.00
2548	1541438.013	734188.4135	0.38	0.00
2549	1541436.231	734188.7079	0.28	0.00
2550	1541434.373	734189.5975	0.23	0.00
2551	1541432.568	734190.0661	0.16	0.00
2552	1541430.788	734190.3478	0.08	0.00
2553	1541428.937	734191.1865	0.01	0.00
2554	1541427.093	734191.968	0.00	0.00
2555	1541425.244	734192.7839	0.00	0.00
2556	1541423.361	734193.8748	0.00	0.00
2557	1541421.708	734193.1303	0.00	0.00
2558	1541419.839	734194.0922	0.00	0.00
2559	1541418.164	734193.5224	0.00	0.00
2560	1541350.138	734123.176	0.00	-1.05
6332	1541334.71	734195.5653	0.94	0.00
6333	1541332.96	734194.4664	0.00	0.00
6334	1541445.503	734262.3042	0.00	-0.94
6335	1541444.309	734263.8558	0.00	-0.70
6336	1541442.855	734263.1041	0.00	-0.13
6337	1541442.398	734264.8739	0.00	-0.04
6338	1541442.027	734266.7532	0.42	0.00
6339	1541440.324	734267.6985	0.60	0.00
6340	1541438.705	734267.1551	0.51	0.00
6341	1541437.055	734266.6448	0.42	0.00
6342	1541435.311	734267.5756	0.62	0.00
6343	1541433.683	734266.5782	0.11	0.00
6344	1541431.955	734267.3049	0.02	0.00
6345	1541430.23	734268.0976	0.00	0.00
6346	1541428.525	734268.6572	0.00	0.00
6347	1541426.798	734269.1236	0.00	0.00
6348	1541425.138	734270.037	0.00	0.00
6349	1541423.177	734269.8143	0.00	0.00
6350	1541421.116	734269.8925	0.00	0.00
6351	1541419.116	734269.9858	0.00	0.00
6352	1541417.115	734270.0337	0.00	0.00
6353	1541415.116	734270.0804	0.00	0.00
6354	1541414.285	734268.3693	0.00	0.00
6355	1541412.286	734268.4148	0.00	0.00
6356	1541410.287	734268.4614	0.00	0.00
6357	1541408.288	734268.5079	0.00	-0.08
6358	1541406.289	734268.5545	0.00	-0.52
6359	1541404.29	734268.6013	0.00	-0.88
6360	1541403.086	734266.8972	0.00	-0.17
6361	1541401.088	734266.944	0.02	0.00
6362	1541399.091	734266.991	0.30	0.00
6363	1541397.093	734267.0382	0.72	0.00
6364	1541396.287	734265.3257	1.90	0.00
6365	1541395.618	734263.6124	2.68	0.00
6366	1541395.027	734261.9129	2.98	0.00
6367	1541394.354	734260.3383	3.27	0.00
6368	1541393.267	734259.0855	3.57	0.00
6369	1541391.258	734258.237	3.95	0.00
6370	1541389.215	734256.8689	4.39	0.00
6371	1541387.381	734255.6013	4.81	0.00
6372	1541386.373	734254.0791	5.15	0.00
6373	1541385.751	734252.455	5.16	0.00
6374	1541385.18	734250.8179	5.16	0.00
6375	1541384.269	734249.2747	5.18	0.00
6376	1541382.732	734247.9037	5.19	0.00
6377	1541381.172	734246.5389	5.20	0.00
6378	1541379.239	734245.2778	5.20	0.00
6379	1541377.403	734243.9901	5.20	0.00
6380	1541375.986	734242.5874	5.43	0.00
6381	1541374.575	734241.1822	5.17	0.00
6382	1541372.889	734239.8528	4.83	0.00
6383	1541371.151	734238.5361	4.24	0.00
6384	1541369.751	734237.127	3.55	0.00
6385	1541367.856	734235.8528	2.11	0.00
6386	1541338.294	734199.7727	0.00	-0.02
6387	1541336.516	734198.596	0.51	0.00
6388	1541334.742	734197.565	1.36	0.00
6389	1541332.984	734196.467	0.00	0.00
6390	1541443.922	734265.8187	0.00	-0.40
6391	1541443.534	734267.7815	0.09	0.00
6392	1541441.98	734268.7546	0.77	0.00
6393	1541440.399	734269.7185	1.37	0.00
6394	1541438.677	734269.1627	1.43	0.00
6395	1541436.982	734268.5972	1.03	0.00
6396	1541435.337	734269.5686	1.15	0.00
6397	1541433.617	734268.5609	0.64	0.00
6398	1541431.938	734269.2976	0.61	0.00
6399	1541430.266	734270.0919	0.58	0.00
6400	1541428.597	734270.661	0.52	0.00
6401	1541427.026	734271.1278	0.46	0.00
6402	1541425.617	734271.7571	0.51	0.00
6403	1541423.824	734271.6195	0.23	0.00
6404	1541421.874	734271.6387	0.00	0.00
6405	1541419.885	734271.6978	0.00	0.00
6406	1541417.885	734271.7469	0.00	0.00
6407	1541415.888	734271.7936	0.00	0.00
6408	1541413.89	734271.84	0.00	0.00
6409	1541413.118	734270.127	0.00	0.00
6410	1541411.119	734270.1734	0.00	0.00
6411	1541409.121	734270.22	0.00	-0.19

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2561	1541348.638	734121.9781	0.00	-1.19
2562	1541347.081	734121.0271	0.00	-1.34
2563	1541345.519	734120.1482	0.00	-1.18
2564	1541346.03	734118.1979	0.00	-0.98
2565	1541346.599	734116.1436	0.00	-0.62
2566	1541347.539	734114.3457	0.00	-0.22
2567	1541347.28	734112.6088	0.01	0.00
2568	1541346.572	734111.0781	0.17	0.00
2569	1541346.049	734109.3319	0.28	0.00
2570	1541345.326	734108.0938	0.27	0.00
2571	1541344.506	734106.9943	0.31	0.00
2572	1541345.293	734105.4469	0.30	0.00
2573	1541345.726	734103.7329	0.26	0.00
2574	1541346.363	734101.994	0.19	0.00
2575	1541346.734	734100.2564	0.20	0.00
2576	1541347.111	734098.5186	0.18	0.00
2577	1541347.78	734096.7725	0.15	0.00
2578	1541348.748	734095.0184	0.14	0.00
2579	1541504.766	734091.4104	0.03	0.00
2580	1541505.704	734093.1213	0.00	-0.07
2581	1541507.099	734094.8215	0.00	-0.18
2582	1541508.749	734096.5158	0.00	-0.26
2583	1541510.211	734098.2148	0.00	-0.34
2584	1541511.157	734099.925	0.00	-0.50
2585	1541511.631	734101.6454	0.00	-0.67
2586	1541511.981	734103.3684	0.00	-1.83
2587	1541512.655	734105.0836	0.00	-3.01
2588	1541511.759	734106.8365	0.00	-3.76
2589	1541510.716	734108.5928	0.00	-4.49
2590	1541511.399	734110.3081	0.00	-5.23
2591	1541512.056	734112.0243	0.00	-5.33
2592	1541510.768	734113.7867	0.00	-5.38
2593	1541510.026	734115.5357	0.00	-5.37
2594	1541509.772	734117.2722	0.00	-5.27
2595	1541509.439	734119.0108	0.00	-5.19
2596	1541508.576	734120.7611	0.00	-5.20
2597	1541507.464	734122.5178	0.00	-5.24
2598	1541506.359	734124.2758	0.00	-5.29
2599	1541507.201	734125.9866	0.00	-4.93
2600	1541505.955	734127.7451	0.00	-5.05
2601	1541506.663	734129.4579	0.00	-4.68
2602	1541505.396	734131.2075	0.00	-4.81
2603	1541506.289	734132.8261	0.00	-4.46
2604	1541505.161	734134.4952	0.00	-4.58
2605	1541506.229	734136.0145	0.00	-4.25
2606	1541505.113	734137.6706	0.00	-4.38
2607	1541506.181	734139.1785	0.00	-4.09
2608	1541507.238	734140.6993	0.00	-3.84
2609	1541506.103	734142.3402	0.00	-3.68
2610	1541504.957	734143.9732	0.00	-3.43
2611	1541503.798	734145.597	0.00	-3.19
2612	1541504.795	734147.1789	0.00	-2.85
2613	1541505.771	734148.788	0.00	-2.49
2614	1541504.578	734150.3931	0.00	-2.18
2615	1541503.361	734151.9803	0.00	-1.87
2616	1541502.128	734153.5551	0.00	-1.55
2617	1541500.894	734155.1288	0.00	-1.32
2618	1541499.676	734156.7157	0.00	-1.34
2619	1541498.492	734158.328	0.00	-1.34
2620	1541497.357	734159.9745	0.00	-1.32
2621	1541496.28	734161.6597	0.00	-1.28
2622	1541495.267	734163.3845	0.00	-1.22
2623	1541494.32	734165.1461	0.00	-1.17
2624	1541493.429	734166.9377	0.00	-1.13
2625	1541492.576	734168.747	0.00	-1.06
2626	1541491.723	734170.5566	0.00	-0.98
2627	1541489.75	734170.6307	0.00	-1.32
2628	1541487.745	734170.7307	0.00	-1.67
2629	1541486.794	734172.4833	0.00	-1.68
2630	1541484.666	734172.696	0.00	-2.08
2631	1541482.528	734172.8921	0.00	-2.50
2632	1541480.398	734173.0524	0.00	-3.11
2633	1541478.199	734173.3103	0.00	-3.76
2634	1541477.132	734175.0048	0.00	-3.48
2635	1541474.956	734175.1944	0.00	-3.22
2636	1541473.881	734176.881	0.00	-2.93
2637	1541472.806	734178.5641	0.00	-2.67
2638	1541470.588	734178.8437	0.00	-1.97
2639	1541468.531	734179.2007	0.00	-0.75
2640	1541466.771	734179.6346	0.00	-0.14

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6412	1541407.122	734270.2666	0.00	-0.63
6413	1541405.124	734270.3134	0.00	-1.07
6414	1541403.125	734270.3602	0.00	-1.40
6415	1541402.291	734268.6481	0.00	-0.70
6416	1541400.292	734268.695	0.00	-0.52
6417	1541398.293	734268.742	0.00	-0.31
6418	1541396.294	734268.7891	0.04	0.00
6419	1541395.096	734267.0856	1.42	0.00
6420	1541394.288	734265.3746	2.59	0.00
6421	1541393.615	734263.6673	2.90	0.00
6422	1541393.011	734262.0136	3.21	0.00
6423	1541392.602	734260.5717	3.46	0.00
6424	1541391.647	734259.9022	3.67	0.00
6425	1541390.006	734260.11	3.84	0.00
6426	1541389.219	734258.4719	4.17	0.00
6427	1541387.247	734257.4517	4.56	0.00
6428	1541385.452	734256.1271	4.99	0.00
6429	1541384.446	734254.608	5.16	0.00
6430	1541383.824	734252.9844	5.17	0.00
6431	1541383.254	734251.3474	5.18	0.00
6432	1541382.344	734249.8041	5.19	0.00
6433	1541380.806	734248.433	5.20	0.00
6434	1541379.246	734247.0682	5.20	0.00
6435	1541377.315	734245.8065	5.20	0.00
6436	1541375.48	734244.5183	5.21	0.00
6437	1541374.062	734243.1159	5.50	0.00
6438	1541372.651	734241.7109	5.15	0.00
6439	1541370.965	734240.382	4.60	0.00
6440	1541369.221	734239.0673	3.88	0.00
6441	1541367.825	734237.6576	2.93	0.00
6442	1541365.928	734236.3853	1.50	0.00
6443	1541338.345	734201.7727	0.00	-0.03
6444	1541336.56	734200.5965	0.16	0.00
6445	1541334.774	734199.5646	1.04	0.00
6446	1541333.009	734198.4676	0.00	0.00
6447	1541443.732	734269.7531	0.70	0.00
6448	1541442.248	734270.723	1.36	0.00
6449	1541440.719	734271.6909	2.22	0.00
6450	1541438.892	734271.1457	2.30	0.00
6451	1541437.113	734270.5819	1.70	0.00
6452	1541435.517	734271.5554	1.75	0.00
6453	1541433.704	734270.5511	1.25	0.00
6454	1541432.055	734271.2871	1.23	0.00
6455	1541430.382	734272.0881	1.27	0.00
6456	1541428.749	734272.8733	1.32	0.00
6457	1541426.957	734273.1817	1.20	0.00
6458	1541425.038	734273.3532	1.02	0.00
6459	1541423.057	734273.3608	0.68	0.00
6460	1541421.065	734273.4039	0.36	0.00
6461	1541419.067	734273.4509	0.00	0.00
6462	1541417.069	734273.4976	0.00	0.00
6463	1541415.071	734273.5441	0.00	0.00
6464	1541413.073	734273.5906	0.00	0.00
6465	1541411.892	734271.8866	0.00	0.00
6466	1541409.894	734271.9331	0.00	-0.30
6467	1541407.897	734271.9798	0.00	-0.74
6468	1541405.899	734272.0265	0.00	-1.18
6469	1541403.901	734272.0733	0.00	-1.62
6470	1541401.903	734272.1201	0.00	-1.90
6471	1541401.127	734270.407	0.00	-1.21
6472	1541399.128	734270.4539	0.00	-1.01
6473	1541397.13	734270.5009	0.00	-0.64
6474	1541395.131	734270.5479	0.00	-0.06
6475	1541394.295	734268.836	0.92	0.00
6476	1541393.098	734267.132	2.19	0.00
6477	1541392.287	734265.4177	2.81	0.00
6478	1541391.593	734263.6962	3.14	0.00
6479	1541391.002	734261.8735	3.47	0.00
6480	1541388.889	734261.8228	3.73	0.00
6481	1541387.625	734259.5853	4.21	0.00
6482	1541385.395	734257.9946	4.69	0.00
6483	1541383.533	734256.6612	5.13	0.00
6484	1541382.522	734255.1371	5.17	0.00
6485	1541381.897	734253.5132	5.18	0.00
6486	1541381.327	734251.876	5.19	0.00
6487	1541380.419	734250.3326	5.20	0.00
6488	1541378.881	734248.9613	5.20	0.00
6489	1541377.32	734247.5965	5.20	0.00
6490	1541375.389	734246.334	5.20	0.00
6491	1541373.557	734245.0449	5.22	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2641	1541465.171	734180.4477	0.13	0.00
2642	1541463.395	734181.0646	0.41	0.00
2643	1541461.597	734181.3005	0.66	0.00
2644	1541459.759	734182.0189	0.93	0.00
2645	1541457.889	734183.0108	1.22	0.00
2646	1541456.075	734183.5636	1.59	0.00
2647	1541454.231	734184.3648	1.48	0.00
2648	1541452.385	734185.1584	1.36	0.00
2649	1541450.54	734185.9422	1.25	0.00
2650	1541448.704	734186.6656	1.13	0.00
2651	1541446.887	734187.247	1.00	0.00
2652	1541445.056	734187.9311	0.88	0.00
2653	1541443.243	734188.473	0.77	0.00
2654	1541441.425	734189.0422	0.67	0.00
2655	1541439.556	734190.0181	0.58	0.00
2656	1541437.762	734190.3974	0.47	0.00
2657	1541435.98	734190.691	0.36	0.00
2658	1541434.122	734191.5811	0.31	0.00
2659	1541432.317	734192.0502	0.24	0.00
2660	1541430.537	734192.3308	0.16	0.00
2661	1541428.686	734193.1686	0.10	0.00
2662	1541426.842	734193.9511	0.04	0.00
2663	1541424.994	734194.7674	0.00	0.00
2664	1541423.11	734195.8594	0.00	0.00
2665	1541421.457	734195.1155	0.00	0.00
2666	1541419.588	734196.078	0.00	0.00
2667	1541417.914	734195.5074	0.00	0.00
2668	1541349.686	734125.1249	0.00	-1.24
2669	1541348.183	734123.9274	0.00	-1.38
2670	1541346.629	734122.9724	0.00	-1.37
2671	1541345.06	734122.0966	0.00	-1.18
2672	1541343.536	734121.1596	0.00	-0.98
2673	1541343.984	734119.2231	0.00	-0.98
2674	1541344.493	734117.3202	0.00	-0.77
2675	1541344.884	734115.5988	0.00	-0.33
2676	1541345.926	734114.0839	0.00	-0.18
2677	1541345.2	734112.3802	0.12	0.00
2678	1541344.325	734110.5772	0.33	0.00
2679	1541343.993	734108.659	0.36	0.00
2680	1541342.394	734107.3537	0.49	0.00
2681	1541343.518	734105.7059	0.38	0.00
2682	1541343.635	734103.8847	0.30	0.00
2683	1541344.367	734102.0564	0.19	0.00
2684	1541344.741	734100.304	0.15	0.00
2685	1541345.116	734098.5644	0.15	0.00
2686	1541345.784	734096.8185	0.10	0.00
2687	1541346.748	734095.0646	0.00	0.00
2688	1541506.766	734091.3641	0.02	0.00
2689	1541507.703	734093.0751	0.00	-0.06
2690	1541509.099	734094.7753	0.00	-0.16
2691	1541510.749	734096.4695	0.00	-0.24
2692	1541512.21	734098.1685	0.00	-0.29
2693	1541513.155	734099.8786	0.00	-0.38
2694	1541513.628	734101.5989	0.00	-0.90
2695	1541513.979	734103.3218	0.00	-2.01
2696	1541514.654	734105.0368	0.00	-3.03
2697	1541513.757	734106.7897	0.00	-3.76
2698	1541512.714	734108.5459	0.00	-4.52
2699	1541513.397	734110.2611	0.00	-5.27
2700	1541514.055	734111.977	0.00	-5.04
2701	1541512.766	734113.7394	0.00	-5.13
2702	1541512.023	734115.4883	0.00	-5.11
2703	1541511.769	734117.2248	0.00	-4.95
2704	1541511.434	734118.9633	0.00	-4.76
2705	1541510.574	734120.7135	0.00	-4.74
2706	1541509.463	734122.4701	0.00	-4.78
2707	1541508.356	734124.2283	0.00	-4.85
2708	1541509.196	734125.939	0.00	-4.41
2709	1541507.951	734127.6975	0.00	-4.53
2710	1541508.679	734129.3983	0.00	-4.16
2711	1541507.453	734131.127	0.00	-4.32
2712	1541508.441	734132.6879	0.00	-3.92
2713	1541507.337	734134.3538	0.00	-4.09
2714	1541508.41	734135.8649	0.00	-3.74
2715	1541507.301	734137.5251	0.00	-3.94
2716	1541508.36	734139.0503	0.00	-3.69
2717	1541509.38	734140.6363	0.00	-3.46
2718	1541508.251	734142.284	0.00	-3.66
2719	1541507.111	734143.9239	0.00	-3.37
2720	1541505.96	734145.5563	0.00	-3.14

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6492	1541372.138	734243.6422	5.51	0.00
6493	1541370.728	734242.2367	4.98	0.00
6494	1541369.046	734240.9072	4.28	0.00
6495	1541367.269	734239.5931	3.46	0.00
6496	1541365.907	734238.2048	2.42	0.00
6497	1541363.999	734236.9179	1.24	0.00
6498	1541338.397	734203.7728	0.00	-0.08
6499	1541336.604	734202.597	0.00	-0.01
6500	1541334.807	734201.5642	0.67	0.00
6501	1541333.033	734200.4682	0.49	0.00
6502	1541444.197	734271.6943	1.49	0.00
6503	1541442.702	734272.6723	2.22	0.00
6504	1541441.107	734273.6433	3.10	0.00
6505	1541439.227	734273.1127	3.09	0.00
6506	1541437.386	734272.5579	2.34	0.00
6507	1541435.786	734273.5292	2.35	0.00
6508	1541433.916	734272.5381	1.85	0.00
6509	1541432.272	734273.24	1.90	0.00
6510	1541430.793	734274.1018	2.02	0.00
6511	1541429.768	734274.9725	2.21	0.00
6512	1541428.058	734274.8936	1.97	0.00
6513	1541426.153	734275.0241	1.78	0.00
6514	1541424.153	734275.0706	1.47	0.00
6515	1541422.157	734275.1116	1.12	0.00
6516	1541420.159	734275.1575	0.62	0.00
6517	1541418.161	734275.2039	0.02	0.00
6518	1541416.162	734275.2504	0.00	0.00
6519	1541414.163	734275.297	0.00	0.00
6520	1541412.165	734275.3436	0.00	-0.38
6521	1541411.074	734273.6372	0.00	-0.33
6522	1541409.076	734273.6839	0.00	-0.77
6523	1541407.078	734273.7306	0.00	-1.21
6524	1541405.079	734273.7774	0.00	-1.65
6525	1541403.081	734273.8242	0.00	-1.96
6526	1541401.083	734273.8711	0.00	-1.97
6527	1541399.905	734272.167	0.00	-1.71
6528	1541397.907	734272.2139	0.00	-1.26
6529	1541395.91	734272.2609	0.00	-0.69
6530	1541393.912	734272.3079	0.00	-0.12
6531	1541393.133	734270.5949	0.75	0.00
6532	1541392.296	734268.883	1.65	0.00
6533	1541391.101	734267.1782	2.64	0.00
6534	1541390.286	734265.4617	3.00	0.00
6535	1541389.601	734263.7094	3.35	0.00
6536	1541387.599	734263.7524	3.48	0.00
6537	1541386.866	734261.7889	3.89	0.00
6538	1541385.483	734259.9121	4.36	0.00
6539	1541383.43	734258.4937	4.79	0.00
6540	1541381.602	734257.1822	4.95	0.00
6541	1541380.596	734255.6619	5.03	0.00
6542	1541379.97	734254.0395	5.19	0.00
6543	1541379.401	734252.403	5.20	0.00
6544	1541378.493	734250.8595	5.20	0.00
6545	1541376.955	734249.4879	5.20	0.00
6546	1541375.395	734248.1222	5.20	0.00
6547	1541373.46	734246.8595	5.20	0.00
6548	1541371.634	734245.5659	5.23	0.00
6549	1541370.214	734244.1631	5.38	0.00
6550	1541368.805	734242.7502	4.66	0.00
6551	1541367.138	734241.3918	3.86	0.00
6552	1541365.173	734240.2329	3.01	0.00
6553	1541364.032	734238.6705	2.01	0.00
6554	1541362.071	734237.4504	1.16	0.00
6555	1541338.448	734205.7729	0.00	-0.10
6556	1541336.648	734204.5975	0.00	-0.03
6557	1541334.839	734203.5638	0.37	0.00
6558	1541333.057	734202.4688	0.90	0.00
6559	1541444.795	734273.6036	1.62	0.00
6560	1541443.052	734274.6065	2.60	0.00
6561	1541441.35	734275.6093	3.73	0.00
6562	1541439.523	734275.0801	3.57	0.00
6563	1541437.677	734274.5355	2.77	0.00
6564	1541435.966	734275.5024	2.60	0.00
6565	1541434.159	734274.5312	2.53	0.00
6566	1541432.562	734275.1147	2.57	0.00
6567	1541431.62	734276.4192	2.60	0.00
6568	1541429.578	734276.6744	2.60	0.00
6569	1541427.579	734276.713	2.58	0.00
6570	1541425.576	734276.7638	2.32	0.00
6571	1541423.577	734276.8098	1.94	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2721	1541506.942	734147.1668	0.00	-2.80
2722	1541507.951	734148.7356	0.00	-2.46
2723	1541506.776	734150.3509	0.00	-2.15
2724	1541505.576	734151.9482	0.00	-1.83
2725	1541504.353	734153.5271	0.00	-1.52
2726	1541503.116	734155.0953	0.00	-1.19
2727	1541501.882	734156.6667	0.00	-1.04
2728	1541500.671	734158.2561	0.00	-1.05
2729	1541499.502	734159.8757	0.00	-1.04
2730	1541498.387	734161.5334	0.00	-1.01
2731	1541497.336	734163.2324	0.00	-0.96
2732	1541496.354	734164.9719	0.00	-0.89
2733	1541495.438	734166.7472	0.00	-0.83
2734	1541494.574	734168.5489	0.00	-0.76
2735	1541493.733	734170.3617	0.00	-0.68
2736	1541492.875	734172.165	0.00	-0.60
2737	1541490.832	734172.3464	0.00	-0.92
2738	1541488.829	734172.402	0.00	-1.29
2739	1541487.848	734174.141	0.00	-1.27
2740	1541485.789	734174.2062	0.00	-1.70
2741	1541483.638	734174.408	0.00	-2.11
2742	1541481.484	734174.5952	0.00	-2.56
2743	1541479.343	734174.7486	0.00	-3.20
2744	1541478.276	734176.437	0.00	-3.29
2745	1541476.059	734176.6939	0.00	-3.20
2746	1541474.982	734178.3799	0.00	-2.91
2747	1541473.898	734180.064	0.00	-2.65
2748	1541471.718	734180.2522	0.00	-2.38
2749	1541469.474	734180.5531	0.00	-1.23
2750	1541467.195	734180.93	0.00	-0.12
2751	1541465.387	734182.4056	0.20	0.00
2752	1541463.174	734183.0072	0.52	0.00
2753	1541461.348	734183.2821	0.77	0.00
2754	1541459.508	734184	1.04	0.00
2755	1541457.638	734184.9932	1.34	0.00
2756	1541455.824	734185.5452	1.66	0.00
2757	1541453.98	734186.3444	1.54	0.00
2758	1541452.134	734187.1404	1.42	0.00
2759	1541450.289	734187.9271	1.29	0.00
2760	1541448.453	734188.6482	1.17	0.00
2761	1541446.636	734189.2277	1.05	0.00
2762	1541444.805	734189.9134	0.95	0.00
2763	1541442.991	734190.4556	0.84	0.00
2764	1541441.174	734191.0253	0.73	0.00
2765	1541439.304	734192.0026	0.66	0.00
2766	1541437.511	734192.3812	0.56	0.00
2767	1541435.729	734192.6741	0.46	0.00
2768	1541433.87	734193.5645	0.40	0.00
2769	1541432.065	734194.0342	0.32	0.00
2770	1541430.286	734194.3137	0.24	0.00
2771	1541428.435	734195.1505	0.19	0.00
2772	1541426.591	734195.934	0.12	0.00
2773	1541424.743	734196.7507	0.05	0.00
2774	1541422.859	734197.8439	0.00	0.00
2775	1541421.206	734197.1007	0.00	0.00
2776	1541419.337	734198.0638	0.00	0.00
2777	1541417.663	734197.4923	0.00	0.00
2778	1541349.233	734127.0739	0.00	-1.36
2779	1541347.731	734125.876	0.00	-1.89
2780	1541346.167	734124.9263	0.00	-1.53
2781	1541344.613	734124.0478	0.00	-1.20
2782	1541343.082	734123.1273	0.00	-0.78
2783	1541341.833	734121.8337	0.54	0.00
2784	1541342.156	734119.8604	0.23	0.00
2785	1541342.527	734117.8846	0.14	0.00
2786	1541342.865	734115.7593	0.18	0.00
2787	1541344.04	734113.9907	0.10	0.00
2788	1541343.514	734112.259	0.25	0.00
2789	1541342.265	734111.3247	0.50	0.00
2790	1541342.357	734109.4161	0.57	0.00
2791	1541340.593	734108.6733	0.39	0.00
2792	1541340.519	734106.7288	0.16	0.00
2793	1541341.992	734105.3684	0.42	0.00
2794	1541341.778	734103.6466	0.19	0.00
2795	1541342.379	734102.043	0.18	0.00
2796	1541342.749	734100.3383	0.08	0.00
2797	1541343.122	734098.6078	0.00	0.00
2798	1541343.788	734096.864	0.00	0.00
2799	1541344.748	734095.1109	0.00	0.00
2800	1541508.767	734091.3178	0.01	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6572	1541421.58	734276.8552	1.45	0.00
6573	1541419.582	734276.9015	0.85	0.00
6574	1541417.585	734276.948	0.23	0.00
6575	1541415.587	734276.9946	0.00	0.00
6576	1541413.589	734277.0412	0.00	-0.35
6577	1541411.591	734277.0879	0.00	-0.77
6578	1541410.166	734275.3903	0.00	-0.82
6579	1541408.167	734275.4371	0.00	-1.26
6580	1541406.168	734275.4839	0.00	-1.70
6581	1541404.169	734275.5307	0.00	-1.98
6582	1541402.17	734275.5776	0.00	-1.99
6583	1541400.171	734275.6245	0.00	-2.00
6584	1541399.084	734273.918	0.00	-1.98
6585	1541397.086	734273.9649	0.00	-1.50
6586	1541395.088	734274.0119	0.00	-0.97
6587	1541393.089	734274.0589	0.00	-0.47
6588	1541391.914	734272.3549	0.44	0.00
6589	1541391.135	734270.642	1.26	0.00
6590	1541390.297	734268.93	2.09	0.00
6591	1541389.103	734267.2252	2.75	0.00
6592	1541388.291	734265.5048	3.12	0.00
6593	1541386.293	734265.5553	3.26	0.00
6594	1541385.611	734263.8122	3.64	0.00
6595	1541384.884	734261.9934	4.03	0.00
6596	1541383.512	734260.3184	4.43	0.00
6597	1541381.484	734259.0023	4.65	0.00
6598	1541379.672	734257.7019	4.61	0.00
6599	1541378.669	734256.1821	4.70	0.00
6600	1541378.042	734254.5625	4.85	0.00
6601	1541377.474	734252.9264	5.10	0.00
6602	1541376.568	734251.3833	5.20	0.00
6603	1541375.028	734250.0094	5.20	0.00
6604	1541373.471	734248.6421	5.20	0.00
6605	1541371.502	734247.3727	5.20	0.00
6606	1541369.708	734246.0911	5.20	0.00
6607	1541368.292	734244.657	4.96	0.00
6608	1541366.892	734243.2328	4.23	0.00
6609	1541365.445	734241.9835	3.52	0.00
6610	1541363.631	734242.0042	3.02	0.00
6611	1541363.039	734240.4541	2.40	0.00
6612	1541362.288	734239.081	1.82	0.00
6613	1541360.576	734238.5919	1.57	0.00
6614	1541360.344	734236.8846	0.88	0.00
6615	1541338.5	734207.7729	0.00	-0.16
6616	1541336.693	734206.5978	0.00	-0.05
6617	1541334.871	734205.5632	0.10	0.00
6618	1541333.081	734204.4695	0.79	0.00
6619	1541444.894	734275.5956	1.85	0.00
6620	1541443.158	734276.6029	2.66	0.00
6621	1541441.389	734277.5727	3.66	0.00
6622	1541439.566	734277.0847	3.49	0.00
6623	1541437.83	734276.5095	2.74	0.00
6624	1541436.086	734277.3278	2.60	0.00
6625	1541434.108	734276.6715	2.60	0.00
6626	1541432.844	734278.2346	2.60	0.00
6627	1541430.784	734278.3064	2.60	0.00
6628	1541428.767	734278.4179	2.60	0.00
6629	1541426.769	734278.4647	2.60	0.00
6630	1541424.772	734278.512	2.60	0.00
6631	1541422.775	734278.5582	2.22	0.00
6632	1541420.778	734278.6045	1.60	0.00
6633	1541418.782	734278.651	0.96	0.00
6634	1541416.785	734278.6976	0.32	0.00
6635	1541414.788	734278.7442	0.00	-0.12
6636	1541412.791	734278.7909	0.00	-0.43
6637	1541410.794	734278.8376	0.00	-0.75
6638	1541409.593	734277.1346	0.00	-1.07
6639	1541407.595	734277.1814	0.00	-1.39
6640	1541405.597	734277.2282	0.00	-1.75
6641	1541403.599	734277.275	0.00	-2.01
6642	1541401.601	734277.3219	0.00	-2.02
6643	1541399.603	734277.3687	0.00	-2.03
6644	1541398.171	734275.6714	0.00	-2.01
6645	1541396.172	734275.7183	0.00	-1.82
6646	1541394.173	734275.7653	0.00	-1.34
6647	1541392.175	734275.8123	0.00	-0.86
6648	1541391.091	734274.1059	0.00	0.00
6649	1541389.916	734272.402	0.85	0.00
6650	1541389.136	734270.6892	1.61	0.00
6651	1541388.298	734268.9773	2.41	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2801	1541509.702	734093.0289	0.00	-0.06
2802	1541511.099	734094.729	0.00	-0.15
2803	1541512.749	734096.4232	0.00	-0.23
2804	1541514.208	734098.1221	0.00	-0.29
2805	1541515.154	734099.8321	0.00	-0.34
2806	1541515.625	734101.5524	0.00	-1.13
2807	1541515.976	734103.2751	0.00	-2.17
2808	1541516.652	734104.99	0.00	-3.04
2809	1541515.756	734106.7427	0.00	-3.78
2810	1541514.712	734108.4988	0.00	-4.51
2811	1541515.396	734110.2139	0.00	-4.94
2812	1541516.054	734111.9296	0.00	-4.63
2813	1541514.764	734113.692	0.00	-4.72
2814	1541514.02	734115.4409	0.00	-4.70
2815	1541513.765	734117.1772	0.00	-4.56
2816	1541513.429	734118.9156	0.00	-4.38
2817	1541512.571	734120.6658	0.00	-4.29
2818	1541511.463	734122.4223	0.00	-4.32
2819	1541510.353	734124.1804	0.00	-4.34
2820	1541511.189	734125.8913	0.00	-3.92
2821	1541509.948	734127.6497	0.00	-4.01
2822	1541510.741	734129.3159	0.00	-3.60
2823	1541509.569	734131.0151	0.00	-3.75
2824	1541510.616	734132.5371	0.00	-3.38
2825	1541509.513	734134.2003	0.00	-3.56
2826	1541510.573	734135.7306	0.00	-3.26
2827	1541509.471	734137.3934	0.00	-3.47
2828	1541510.495	734138.98	0.00	-3.25
2829	1541511.502	734140.5929	0.00	-3.06
2830	1541510.38	734142.2482	0.00	-3.28
2831	1541509.244	734143.8949	0.00	-3.29
2832	1541508.098	734145.5345	0.00	-3.07
2833	1541509.109	734147.1075	0.00	-2.76
2834	1541510.021	734148.8179	0.00	-2.40
2835	1541508.859	734150.441	0.00	-2.08
2836	1541507.677	734152.0486	0.00	-1.77
2837	1541506.467	734153.6358	0.00	-1.44
2838	1541505.235	734155.2053	0.00	-1.12
2839	1541503.994	734156.7683	0.00	-0.80
2840	1541502.764	734158.3404	0.00	-0.75
2841	1541501.566	734159.9371	0.00	-0.76
2842	1541500.418	734161.5696	0.00	-0.73
2843	1541499.333	734163.2443	0.00	-0.69
2844	1541498.318	734164.9625	0.00	-0.63
2845	1541497.375	734166.7213	0.00	-0.57
2846	1541496.496	734168.5133	0.00	-0.49
2847	1541495.657	734170.3251	0.00	-0.40
2848	1541494.82	734172.1369	0.00	-0.30
2849	1541493.939	734173.9263	0.00	-0.20
2850	1541491.96	734173.9399	0.00	-0.54
2851	1541489.879	734174.1035	0.00	-0.89
2852	1541488.868	734175.8292	0.00	-0.89
2853	1541486.82	734175.8536	0.00	-1.29
2854	1541484.748	734175.9083	0.00	-1.71
2855	1541482.583	734176.1047	0.00	-2.16
2856	1541480.421	734176.2875	0.00	-2.64
2857	1541479.35	734177.9743	0.00	-2.74
2858	1541477.202	734178.1213	0.00	-3.19
2859	1541476.124	734179.8033	0.00	-2.91
2860	1541475.043	734181.4833	0.00	-2.61
2861	1541472.81	734181.7475	0.00	-2.28
2862	1541470.605	734181.9355	0.00	-1.69
2863	1541468.175	734182.2598	0.00	-0.15
2864	1541467.059	734183.8953	0.12	0.00
2865	1541464.774	734184.4039	0.42	0.00
2866	1541462.865	734184.9818	0.68	0.00
2867	1541461.091	734185.2725	0.92	0.00
2868	1541459.261	734185.9841	1.17	0.00
2869	1541457.386	734186.975	1.46	0.00
2870	1541455.572	734187.5268	1.71	0.00
2871	1541453.729	734188.324	1.58	0.00
2872	1541451.883	734189.1223	1.46	0.00
2873	1541450.037	734189.9119	1.34	0.00
2874	1541448.202	734190.6306	1.22	0.00
2875	1541446.385	734191.2084	1.12	0.00
2876	1541444.553	734191.8955	1.01	0.00
2877	1541442.74	734192.4382	0.91	0.00
2878	1541440.922	734193.0082	0.81	0.00
2879	1541439.053	734193.987	0.74	0.00
2880	1541437.259	734194.365	0.65	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6652	1541387.107	734267.2722	2.88	0.00
6653	1541385.11	734267.3205	3.08	0.00
6654	1541384.295	734265.6055	3.40	0.00
6655	1541383.604	734263.8868	3.72	0.00
6656	1541382.896	734262.1859	4.04	0.00
6657	1541381.552	734260.7168	4.30	0.00
6658	1541379.532	734259.5064	4.45	0.00
6659	1541377.739	734258.2086	4.31	0.00
6660	1541376.737	734256.6967	4.39	0.00
6661	1541376.111	734255.0762	4.50	0.00
6662	1541375.545	734253.4416	4.73	0.00
6663	1541374.64	734251.8979	4.91	0.00
6664	1541373.098	734250.5191	4.96	0.00
6665	1541371.555	734249.1249	5.01	0.00
6666	1541369.423	734248.0195	4.93	0.00
6667	1541367.784	734246.5326	4.92	0.00
6668	1541366.341	734245.0625	4.34	0.00
6669	1541364.918	734243.5868	3.73	0.00
6670	1541362.948	734243.7016	3.05	0.00
6671	1541361.646	734242.0157	2.62	0.00
6672	1541361.015	734240.375	2.22	0.00
6673	1541359.175	734239.786	1.99	0.00
6674	1541358.825	734237.7696	1.17	0.00
6675	1541358.73	734235.7018	0.43	0.00
6676	1541338.551	734209.773	0.00	-0.24
6677	1541336.737	734208.5979	0.00	-0.10
6678	1541334.903	734207.5626	0.00	-0.01
6679	1541333.105	734206.4701	0.50	0.00
6680	1541444.912	734277.5959	1.67	0.00
6681	1541443.15	734278.6045	2.64	0.00
6682	1541441.419	734279.4117	3.47	0.00
6683	1541439.647	734279.0505	3.42	0.00
6684	1541437.576	734278.6223	2.60	0.00
6685	1541435.026	734278.8996	2.60	0.00
6686	1541433.394	734279.9994	2.60	0.00
6687	1541431.551	734280.0232	2.60	0.00
6688	1541429.584	734280.1226	2.60	0.00
6689	1541427.587	734280.177	2.60	0.00
6690	1541425.59	734280.2234	2.60	0.00
6691	1541423.592	734280.27	2.60	0.00
6692	1541421.595	734280.3165	2.12	0.00
6693	1541419.597	734280.3631	1.45	0.00
6694	1541417.599	734280.4098	0.84	0.00
6695	1541415.601	734280.4565	0.30	0.00
6696	1541413.602	734280.5033	0.00	-0.15
6697	1541411.604	734280.55	0.00	-0.49
6698	1541409.606	734280.5968	0.00	-0.86
6699	1541408.797	734278.8844	0.00	-1.14
6700	1541406.799	734278.9312	0.00	-1.50
6701	1541404.802	734278.978	0.00	-1.86
6702	1541402.805	734279.0248	0.00	-2.04
6703	1541400.808	734279.0717	0.00	-2.06
6704	1541398.811	734279.1185	0.00	-2.07
6705	1541397.605	734277.4156	0.00	-2.04
6706	1541395.607	734277.4626	0.00	-2.06
6707	1541393.609	734277.5095	0.00	-1.81
6708	1541391.611	734277.5565	0.00	-1.32
6709	1541390.176	734275.8594	0.00	-0.38
6710	1541389.093	734274.153	0.49	0.00
6711	1541387.919	734272.4491	1.34	0.00
6712	1541387.138	734270.7364	2.09	0.00
6713	1541386.3	734269.0246	2.72	0.00
6714	1541384.301	734269.0723	2.72	0.00
6715	1541383.113	734267.3687	3.08	0.00
6716	1541382.295	734265.6584	3.39	0.00
6717	1541381.589	734263.9614	3.69	0.00
6718	1541380.908	734262.3719	3.97	0.00
6719	1541379.62	734261.1127	4.20	0.00
6720	1541377.555	734259.9691	4.17	0.00
6721	1541375.79	734258.7244	4.07	0.00
6722	1541374.802	734257.1917	4.16	0.00
6723	1541374.176	734255.572	4.28	0.00
6724	1541373.612	734253.9389	4.33	0.00
6725	1541372.714	734252.3992	4.44	0.00
6726	1541371.178	734251.0235	4.49	0.00
6727	1541369.856	734249.7604	4.58	0.00
6728	1541368.046	734249.9216	4.30	0.00
6729	1541367.25	734248.3361	4.55	0.00
6730	1541365.803	734246.8506	4.21	0.00
6731	1541364.364	734245.3144	3.62	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2881	1541435.477	734194.6571	0.56	0.00
2882	1541433.619	734195.5479	0.51	0.00
2883	1541431.814	734196.018	0.42	0.00
2884	1541430.035	734196.2964	0.33	0.00
2885	1541428.184	734197.1323	0.27	0.00
2886	1541426.341	734197.9168	0.20	0.00
2887	1541424.492	734198.7339	0.13	0.00
2888	1541422.608	734199.8283	0.06	0.00
2889	1541420.955	734199.0859	0.00	0.00
2890	1541419.086	734200.0495	0.00	0.00
2891	1541417.412	734199.4772	0.00	0.00
2892	1541348.781	734129.0228	0.00	-1.40
2893	1541347.278	734127.8253	0.00	-1.98
2894	1541345.715	734126.8724	0.00	-1.85
2895	1541344.097	734126.0297	0.00	-1.14
2896	1541342.632	734125.008	0.00	-0.22
2897	1541341.278	734123.6796	1.21	0.00
2898	1541340.405	734122.5536	0.92	0.00
2899	1541340.567	734120.7327	0.94	0.00
2900	1541340.677	734118.7642	0.92	0.00
2901	1541340.822	734116.7796	0.89	0.00
2902	1541340.777	734114.7794	0.85	0.00
2903	1541342.293	734113.4747	0.48	0.00
2904	1541340.623	734112.6827	0.68	0.00
2905	1541340.592	734110.6712	0.57	0.00
2906	1541338.865	734109.9251	0.02	0.00
2907	1541338.832	734107.9338	0.00	-0.17
2908	1541338.797	734105.951	0.00	-0.35
2909	1541340.376	734104.6833	0.00	-0.07
2910	1541340.352	734102.3694	0.00	-0.23
2911	1541340.759	734100.412	0.00	-0.23
2912	1541341.13	734098.6555	0.00	-0.06
2913	1541341.793	734096.91	0.00	0.00
2914	1541342.748	734095.1572	0.00	0.00
2915	1541510.767	734091.2716	0.01	0.00
2916	1541511.701	734092.9826	0.00	-0.06
2917	1541513.098	734094.6827	0.00	-0.14
2918	1541514.749	734096.3769	0.00	-0.23
2919	1541516.207	734098.0757	0.00	-0.29
2920	1541517.152	734099.7857	0.00	-0.32
2921	1541517.622	734101.5058	0.00	-1.34
2922	1541517.974	734103.2284	0.00	-2.25
2923	1541518.651	734104.943	0.00	-2.74
2924	1541517.754	734106.6957	0.00	-3.49
2925	1541516.71	734108.4517	0.00	-4.25
2926	1541517.394	734110.1665	0.00	-4.54
2927	1541518.053	734111.8821	0.00	-4.23
2928	1541516.761	734113.6444	0.00	-4.30
2929	1541516.017	734115.3932	0.00	-4.28
2930	1541515.762	734117.1295	0.00	-4.16
2931	1541515.424	734118.8678	0.00	-4.00
2932	1541514.568	734120.6179	0.00	-3.90
2933	1541513.462	734122.3743	0.00	-3.89
2934	1541512.349	734124.1327	0.00	-3.87
2935	1541513.185	734125.8433	0.00	-3.43
2936	1541511.963	734127.5897	0.00	-3.49
2937	1541512.857	734129.2068	0.00	-3.05
2938	1541511.724	734130.8745	0.00	-3.20
2939	1541512.778	734132.4055	0.00	-2.80
2940	1541511.674	734134.0669	0.00	-3.04
2941	1541512.7	734135.6495	0.00	-2.76
2942	1541511.6	734137.3163	0.00	-3.01
2943	1541512.611	734138.9287	0.00	-2.81
2944	1541513.633	734140.5211	0.00	-2.65
2945	1541512.521	734142.1804	0.00	-2.89
2946	1541511.395	734143.8301	0.00	-3.10
2947	1541510.256	734145.4718	0.00	-2.99
2948	1541511.17	734147.1858	0.00	-2.68
2949	1541511.975	734149.0532	0.00	-2.26
2950	1541510.821	734150.6837	0.00	-2.00
2951	1541509.65	734152.3022	0.00	-1.67
2952	1541508.455	734153.9012	0.00	-1.35
2953	1541507.23	734155.4784	0.00	-1.03
2954	1541505.986	734157.0409	0.00	-0.70
2955	1541504.743	734158.6038	0.00	-0.45
2956	1541503.522	734160.1845	0.00	-0.47
2957	1541502.34	734161.7895	0.00	-0.45
2958	1541501.223	734163.4489	0.00	-0.42
2959	1541500.175	734165.1551	0.00	-0.36
2960	1541499.214	734166.9017	0.00	-0.29

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6732	1541362.382	734245.3728	2.90	0.00
6733	1541360.995	734243.5664	2.60	0.00
6734	1541359.459	734241.7331	2.60	0.00
6735	1541357.516	734240.8395	2.05	0.00
6736	1541357.427	734238.8687	1.48	0.00
6737	1541357.191	734236.6875	0.76	0.00
6738	1541357.117	734234.519	0.25	0.00
6739	1541338.602	734211.7731	0.00	-0.45
6740	1541336.781	734210.5978	0.00	-0.21
6741	1541334.935	734209.5617	0.00	-0.05
6742	1541333.129	734208.4707	0.25	0.00
6743	1541444.884	734279.5964	1.57	0.00
6744	1541442.823	734280.748	2.75	0.00
6745	1541440.427	734281.1536	3.28	0.00
6746	1541438.377	734280.616	2.78	0.00
6747	1541436.433	734280.2754	2.60	0.00
6748	1541434.726	734281.3797	2.60	0.00
6749	1541432.599	734281.7506	2.60	0.00
6750	1541430.599	734281.8319	2.60	0.00
6751	1541428.598	734281.8845	2.60	0.00
6752	1541426.598	734281.9316	2.60	0.00
6753	1541424.6	734281.9781	2.60	0.00
6754	1541422.602	734282.0248	2.60	0.00
6755	1541420.603	734282.0715	1.96	0.00
6756	1541418.605	734282.1182	1.37	0.00
6757	1541416.606	734282.165	0.81	0.00
6758	1541414.607	734282.2118	0.23	0.00
6759	1541412.609	734282.2586	0.00	-0.22
6760	1541410.61	734282.3054	0.00	-0.63
6761	1541408.611	734282.3523	0.00	-1.02
6762	1541407.608	734280.6437	0.00	-1.25
6763	1541405.609	734280.6905	0.00	-1.64
6764	1541403.611	734280.7374	0.00	-1.89
6765	1541401.613	734280.7842	0.00	-2.06
6766	1541399.614	734280.8311	0.00	-2.09
6767	1541397.616	734280.878	0.00	-2.10
6768	1541396.813	734279.1654	0.00	-2.08
6769	1541394.816	734279.2123	0.00	-2.09
6770	1541392.819	734279.2592	0.00	-2.10
6771	1541390.822	734279.3062	0.00	-1.65
6772	1541389.613	734277.6035	0.00	-0.80
6773	1541388.177	734275.9064	0.13	0.00
6774	1541387.095	734274.2001	1.04	0.00
6775	1541385.921	734272.4963	1.97	0.00
6776	1541385.14	734270.7837	2.60	0.00
6777	1541383.142	734270.8311	2.66	0.00
6778	1541382.303	734269.12	2.72	0.00
6779	1541381.116	734267.4177	3.09	0.00
6780	1541380.296	734265.7124	3.39	0.00
6781	1541379.569	734264.0403	3.69	0.00
6782	1541378.916	734262.5693	3.95	0.00
6783	1541377.805	734261.38	4.14	0.00
6784	1541375.66	734260.6327	3.90	0.00
6785	1541373.865	734259.2217	3.83	0.00
6786	1541372.861	734257.6596	3.82	0.00
6787	1541372.234	734256.0346	3.83	0.00
6788	1541371.67	734254.4011	3.90	0.00
6789	1541370.77	734252.8572	3.99	0.00
6790	1541369.172	734251.4566	4.06	0.00
6791	1541367.034	734251.9235	3.69	0.00
6792	1541366.111	734250.2322	4.01	0.00
6793	1541365.258	734248.6105	4.06	0.00
6794	1541363.794	734247.0138	3.47	0.00
6795	1541361.626	734247.096	2.68	0.00
6796	1541360.444	734245.2036	2.60	0.00
6797	1541359.222	734243.4151	2.51	0.00
6798	1541357.289	734242.6767	2.18	0.00
6799	1541355.447	734241.5906	1.67	0.00
6800	1541355.781	734239.8284	1.36	0.00
6801	1541355.773	734237.7844	0.95	0.00
6802	1541355.579	734235.5323	0.30	0.00
6803	1541355.503	734233.3363	0.00	-0.01
6804	1541338.654	734213.7731	0.00	-0.67
6805	1541336.825	734212.5972	0.00	-0.43
6806	1541334.967	734211.5605	0.00	-0.20
6807	1541333.153	734210.4713	0.06	0.00
6808	1541444.498	734281.5304	1.63	0.00
6809	1541443.458	734283.2175	2.00	0.00
6810	1541441.827	734282.487	2.80	0.00
6811	1541440.386	734283.5715	2.51	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
2961	1541498.317	734168.6861	0.00	-0.21
2962	1541497.476	734170.4981	0.00	-0.10
2963	1541496.652	734172.3181	0.00	0.00
2964	1541495.797	734174.1218	0.00	0.00
2965	1541494.872	734175.8895	0.00	0.00
2966	1541492.988	734175.6796	0.00	-0.13
2967	1541490.979	734175.6793	0.00	-0.49
2968	1541489.949	734177.3912	0.00	-0.48
2969	1541487.821	734177.5342	0.00	-0.88
2970	1541485.766	734177.5505	0.00	-1.31
2971	1541483.688	734177.5989	0.00	-1.76
2972	1541481.516	734177.7935	0.00	-2.22
2973	1541480.443	734179.4783	0.00	-2.29
2974	1541478.274	734179.6579	0.00	-2.84
2975	1541477.195	734181.3394	0.00	-2.88
2976	1541476.113	734183.0193	0.00	-2.04
2977	1541473.961	734183.1618	0.00	-1.85
2978	1541471.724	734183.4269	0.00	-1.33
2979	1541469.517	734183.608	0.00	-0.56
2980	1541468.46	734185.2719	0.16	0.00
2981	1541466.245	734185.6235	0.42	0.00
2982	1541464.282	734186.3281	0.65	0.00
2983	1541462.592	734187.0176	0.83	0.00
2984	1541460.866	734187.2914	1.03	0.00
2985	1541459.008	734187.9632	1.24	0.00
2986	1541457.134	734188.9569	1.46	0.00
2987	1541455.321	734189.5084	1.74	0.00
2988	1541453.477	734190.3035	1.62	0.00
2989	1541451.631	734191.1042	1.50	0.00
2990	1541449.785	734191.8967	1.40	0.00
2991	1541447.95	734192.6131	1.28	0.00
2992	1541446.133	734193.1889	1.17	0.00
2993	1541444.302	734193.8775	1.08	0.00
2994	1541442.488	734194.4206	0.97	0.00
2995	1541440.671	734194.9911	0.89	0.00
2996	1541438.801	734195.9713	0.85	0.00
2997	1541437.008	734196.3486	0.78	0.00
2998	1541435.226	734196.6399	0.71	0.00
2999	1541433.368	734197.5311	0.63	0.00
3000	1541431.563	734198.0018	0.50	0.00
3001	1541429.783	734198.279	0.42	0.00
3002	1541427.933	734199.114	0.35	0.00
3003	1541426.09	734199.8994	0.28	0.00
3004	1541424.241	734200.7169	0.21	0.00
3005	1541422.357	734201.8126	0.13	0.00
3006	1541420.704	734201.0709	0.00	0.00
3007	1541418.835	734202.0352	0.00	0.00
3008	1541417.161	734201.4622	0.00	0.00
3009	1541348.329	734130.9717	0.00	-1.44
3010	1541346.827	734129.7742	0.00	-2.04
3011	1541345.262	734128.8162	0.00	-1.75
3012	1541343.631	734127.9374	0.00	-0.91
3013	1541341.692	734126.9879	0.97	0.00
3014	1541340.766	734125.1729	1.04	0.00
3015	1541339.153	734123.9451	0.43	0.00
3016	1541338.948	734121.901	0.41	0.00
3017	1541338.973	734119.9013	0.41	0.00
3018	1541338.974	734117.9009	0.35	0.00
3019	1541338.963	734115.918	0.28	0.00
3020	1541338.934	734113.9275	0.24	0.00
3021	1541338.89	734111.9237	0.13	0.00
3022	1541337.144	734110.5354	0.00	-0.43
3023	1541337.117	734108.5407	0.00	-0.44
3024	1541337.088	734106.5473	0.00	-0.51
3025	1541337.072	734104.559	0.00	-0.56
3026	1541338.801	734103.9008	0.00	-0.38
3027	1541338.54	734102.0721	0.00	-0.44
3028	1541338.842	734100.4299	0.00	-0.43
3029	1541339.147	734098.6893	0.00	-0.25
3030	1541339.803	734096.9534	0.00	-0.03
3031	1541340.747	734095.2034	0.00	0.00
3032	1541512.767	734091.2253	0.01	0.00
3033	1541513.7	734092.9364	0.00	-0.07
3034	1541515.098	734094.6364	0.00	-0.14
3035	1541516.749	734096.3305	0.00	-0.23
3036	1541518.205	734098.0293	0.00	-0.15
3037	1541519.15	734099.7392	0.00	-0.64
3038	1541519.619	734101.4592	0.00	-1.35
3039	1541519.972	734103.1816	0.00	-2.03
3040	1541520.649	734104.896	0.00	-2.39

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6812	1541438.854	734282.6098	2.89	0.00
6813	1541436.891	734282.0068	2.60	0.00
6814	1541435.359	734283.3456	2.57	0.00
6815	1541433.393	734283.4054	2.60	0.00
6816	1541431.38	734283.5491	2.60	0.00
6817	1541429.379	734283.598	2.60	0.00
6818	1541427.379	734283.6455	2.60	0.00
6819	1541425.38	734283.6923	2.60	0.00
6820	1541423.38	734283.7391	2.60	0.00
6821	1541421.38	734283.7859	2.33	0.00
6822	1541419.381	734283.8327	1.74	0.00
6823	1541417.381	734283.8795	1.09	0.00
6824	1541415.381	734283.9264	0.42	0.00
6825	1541413.381	734283.9732	0.00	-0.04
6826	1541411.381	734284.0201	0.00	-0.45
6827	1541409.381	734284.067	0.00	-0.79
6828	1541407.381	734284.1139	0.00	-0.98
6829	1541406.613	734282.3991	0.00	-1.31
6830	1541404.614	734282.446	0.00	-1.51
6831	1541402.615	734282.4929	0.00	-1.65
6832	1541400.616	734282.5398	0.00	-1.82
6833	1541398.617	734282.5866	0.00	-1.95
6834	1541396.619	734282.6336	0.00	-1.91
6835	1541395.618	734280.9249	0.00	-2.11
6836	1541393.62	734280.9718	0.00	-2.13
6837	1541391.621	734281.0188	0.00	-2.14
6838	1541389.623	734281.0657	0.00	-1.70
6839	1541388.825	734279.3531	0.00	-1.05
6840	1541387.616	734277.6505	0.00	-0.25
6841	1541386.178	734275.9535	0.77	0.00
6842	1541385.097	734274.2473	1.71	0.00
6843	1541383.924	734272.5435	2.62	0.00
6844	1541381.926	734272.5908	2.70	0.00
6845	1541381.144	734270.8783	2.74	0.00
6846	1541380.303	734269.1669	2.79	0.00
6847	1541379.116	734267.4618	3.09	0.00
6848	1541378.286	734265.7338	3.40	0.00
6849	1541377.406	734263.94	3.72	0.00
6850	1541377.096	734262.255	4.01	0.00
6851	1541375.436	734262.5275	3.79	0.00
6852	1541373.627	734261.213	3.60	0.00
6853	1541371.911	734259.6576	3.54	0.00
6854	1541370.91	734258.0709	3.42	0.00
6855	1541370.28	734256.4429	3.36	0.00
6856	1541369.717	734254.8075	3.37	0.00
6857	1541368.832	734253.2312	3.56	0.00
6858	1541367.063	734253.7217	3.24	0.00
6859	1541365.283	734253.6787	3.07	0.00
6860	1541364.86	734252.024	3.45	0.00
6861	1541364.125	734250.3703	3.71	0.00
6862	1541363.285	734248.6917	3.34	0.00
6863	1541361.472	734248.8427	2.68	0.00
6864	1541359.732	734248.3967	2.28	0.00
6865	1541359.472	734246.673	2.31	0.00
6866	1541358.468	734244.712	2.25	0.00
6867	1541356.501	734244.3187	1.90	0.00
6868	1541354.865	734243.1741	1.64	0.00
6869	1541353.134	734242.164	1.24	0.00
6870	1541353.742	734240.5333	0.98	0.00
6871	1541354.126	734238.7248	0.70	0.00
6872	1541354.154	734236.6324	0.32	0.00
6873	1541353.968	734234.357	0.00	-0.01
6874	1541353.889	734232.1535	0.00	-0.32
6875	1541338.705	734215.7732	0.00	-0.89
6876	1541336.869	734214.5949	0.00	-0.64
6877	1541335	734213.5588	0.00	-0.41
6878	1541333.177	734212.4719	0.00	-0.08
6879	1541441.995	734284.5822	1.92	0.00
6880	1541440.44	734285.8318	0.84	0.00
6881	1541438.898	734284.8701	1.07	0.00
6882	1541437.347	734283.9264	1.83	0.00
6883	1541435.938	734285.0785	1.20	0.00
6884	1541434.148	734285.1754	1.38	0.00
6885	1541432.191	734285.257	1.55	0.00
6886	1541430.191	734285.312	1.79	0.00
6887	1541428.192	734285.3584	2.07	0.00
6888	1541426.193	734285.4054	2.36	0.00
6889	1541424.193	734285.4523	2.52	0.00
6890	1541422.194	734285.4991	2.43	0.00
6891	1541420.194	734285.546	1.60	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3041	1541519.752	734106.6486	0.00	-3.12
3042	1541518.707	734108.4045	0.00	-3.89
3043	1541519.392	734110.1191	0.00	-4.13
3044	1541520.052	734111.8344	0.00	-3.84
3045	1541518.758	734113.5967	0.00	-3.89
3046	1541518.014	734115.3454	0.00	-3.87
3047	1541517.758	734117.0816	0.00	-3.75
3048	1541517.419	734118.8199	0.00	-3.63
3049	1541516.565	734120.5699	0.00	-3.53
3050	1541515.461	734122.3264	0.00	-3.46
3051	1541514.345	734124.0849	0.00	-3.44
3052	1541515.196	734125.7855	0.00	-2.98
3053	1541514.02	734127.5113	0.00	-2.99
3054	1541514.999	734129.0911	0.00	-2.60
3055	1541513.888	734130.7492	0.00	-2.60
3056	1541514.914	734132.324	0.00	-2.60
3057	1541513.803	734133.9843	0.00	-2.60
3058	1541514.814	734135.5895	0.00	-2.60
3059	1541513.712	734137.2591	0.00	-2.60
3060	1541514.734	734138.854	0.00	-2.60
3061	1541515.665	734140.5884	0.00	-2.60
3062	1541514.562	734142.2516	0.00	-2.60
3063	1541513.444	734143.9047	0.00	-2.74
3064	1541512.312	734145.5484	0.00	-2.76
3065	1541513.121	734147.4171	0.00	-2.37
3066	1541513.959	734149.2395	0.00	-1.99
3067	1541512.81	734150.8746	0.00	-1.82
3068	1541511.652	734152.5023	0.00	-1.59
3069	1541510.472	734154.1137	0.00	-1.27
3070	1541509.261	734155.7018	0.00	-0.94
3071	1541508.022	734157.2684	0.00	-0.61
3072	1541506.771	734158.8255	0.00	-0.28
3073	1541505.53	734160.3909	0.00	-0.17
3074	1541504.325	734161.9834	0.00	-0.17
3075	1541503.162	734163.5877	0.00	-0.15
3076	1541502.065	734165.2905	0.00	-0.10
3077	1541501.093	734167.0243	0.00	-0.03
3078	1541500.173	734168.7967	0.00	0.00
3079	1541499.321	734170.6042	0.00	0.00
3080	1541498.507	734172.4289	0.00	0.00
3081	1541497.677	734174.2453	0.00	0.00
3082	1541496.783	734176.029	0.00	0.00
3083	1541495.808	734177.7709	0.00	0.00
3084	1541493.875	734177.6193	0.00	0.00
3085	1541491.977	734177.3999	0.00	-0.08
3086	1541490.929	734179.0996	0.00	-0.06
3087	1541488.893	734179.0877	0.00	-0.48
3088	1541486.757	734179.2285	0.00	-0.91
3089	1541484.699	734179.2397	0.00	-1.35
3090	1541482.618	734179.284	0.00	-1.82
3091	1541481.545	734180.9659	0.00	-1.88
3092	1541479.366	734181.1606	0.00	-2.36
3093	1541478.286	734182.841	0.00	-2.43
3094	1541477.204	734184.52	0.00	-1.27
3095	1541475.03	734184.698	0.00	-0.81
3096	1541472.877	734184.839	0.00	-0.61
3097	1541470.641	734185.1075	0.00	-0.09
3098	1541469.562	734186.7855	0.57	0.00
3099	1541467.439	734186.9649	0.42	0.00
3100	1541465.538	734187.2237	0.55	0.00
3101	1541464.24	734188.2963	0.77	0.00
3102	1541462.672	734189.2717	0.96	0.00
3103	1541460.629	734189.2343	1.09	0.00
3104	1541458.756	734189.9395	1.29	0.00
3105	1541456.884	734190.9385	1.52	0.00
3106	1541455.069	734191.4892	1.77	0.00
3107	1541453.226	734192.2831	1.66	0.00
3108	1541451.379	734193.0859	1.54	0.00
3109	1541449.533	734193.8814	1.42	0.00
3110	1541447.698	734194.5954	1.33	0.00
3111	1541445.882	734195.1694	1.22	0.00
3112	1541444.05	734195.8594	1.14	0.00
3113	1541442.237	734196.403	1.07	0.00
3114	1541440.419	734196.9738	1.02	0.00
3115	1541438.549	734197.9555	1.00	0.00
3116	1541436.756	734198.3321	0.94	0.00
3117	1541434.974	734198.6226	0.84	0.00
3118	1541433.116	734199.5141	0.75	0.00
3119	1541431.311	734199.9853	0.62	0.00
3120	1541429.532	734200.2615	0.50	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6892	1541418.195	734285.5928	0.92	0.00
6893	1541416.195	734285.6397	0.24	0.00
6894	1541414.195	734285.6866	0.00	0.00
6895	1541412.195	734285.7335	0.00	-0.29
6896	1541410.196	734285.7804	0.00	-0.52
6897	1541408.196	734285.8273	0.00	-0.63
6898	1541406.196	734285.8742	0.00	-0.55
6899	1541405.381	734284.1608	0.00	-1.17
6900	1541403.381	734284.2077	0.00	-1.30
6901	1541401.381	734284.2546	0.00	-1.23
6902	1541399.381	734284.3016	0.00	-1.16
6903	1541397.381	734284.3485	0.00	-1.08
6904	1541395.381	734284.3954	0.00	-1.01
6905	1541394.62	734282.6805	0.00	-1.84
6906	1541392.621	734282.7274	0.00	-1.76
6907	1541390.622	734282.7743	0.00	-1.69
6908	1541388.624	734282.8212	0.00	-1.62
6909	1541387.625	734281.1126	0.00	-1.11
6910	1541386.828	734279.4001	0.00	-0.45
6911	1541385.618	734277.6975	0.41	0.00
6912	1541384.179	734276.0007	1.48	0.00
6913	1541383.098	734274.2945	2.45	0.00
6914	1541381.101	734274.3417	2.71	0.00
6915	1541379.929	734272.6382	2.77	0.00
6916	1541379.146	734270.9261	2.82	0.00
6917	1541378.306	734269.2156	2.87	0.00
6918	1541377.125	734267.5149	3.09	0.00
6919	1541376.315	734265.8189	3.40	0.00
6920	1541375.464	734264.2947	3.67	0.00
6921	1541373.435	734263.6579	3.48	0.00
6922	1541371.665	734261.735	3.34	0.00
6923	1541369.962	734260.0193	3.11	0.00
6924	1541368.945	734258.4168	2.94	0.00
6925	1541368.315	734256.7856	2.86	0.00
6926	1541367.757	734255.1619	2.95	0.00
6927	1541365.749	734255.3864	2.69	0.00
6928	1541363.777	734255.4647	2.52	0.00
6929	1541363.307	734253.7724	2.88	0.00
6930	1541362.847	734252.0874	3.24	0.00
6931	1541362.144	734250.3923	2.98	0.00
6932	1541360.135	734250.207	2.30	0.00
6933	1541358.196	734249.8254	1.87	0.00
6934	1541357.805	734247.9932	1.89	0.00
6935	1541357.563	734246.1771	1.95	0.00
6936	1541355.773	734245.7449	1.64	0.00
6937	1541354.248	734244.77	1.42	0.00
6938	1541352.549	734243.8011	1.11	0.00
6939	1541350.879	734242.7267	0.80	0.00
6940	1541351.476	734241.0576	0.68	0.00
6941	1541352.103	734239.3985	0.39	0.00
6942	1541352.506	734237.5689	0.15	0.00
6943	1541352.543	734235.4587	0.00	-0.06
6944	1541352.356	734233.1769	0.00	-0.24
6945	1541352.276	734230.9707	0.00	-0.48
6946	1541338.757	734217.7733	0.00	-1.09
6947	1541336.911	734216.5906	0.00	-0.84
6948	1541335.031	734215.5566	0.00	-0.56
6949	1541333.201	734214.4726	0.00	-0.20
6950	1541438.891	734287.0763	0.00	-0.75
6951	1541437.392	734286.191	0.15	0.00
6952	1541435.681	734286.8899	0.00	-0.15
6953	1541433.682	734286.9616	0.01	0.00
6954	1541431.68	734287.008	0.12	0.00
6955	1541429.681	734287.056	0.22	0.00
6956	1541427.682	734287.1027	0.32	0.00
6957	1541425.683	734287.1496	0.42	0.00
6958	1541423.684	734287.1965	0.49	0.00
6959	1541421.685	734287.2433	0.50	0.00
6960	1541419.686	734287.2902	0.45	0.00
6961	1541417.687	734287.3371	0.29	0.00
6962	1541415.688	734287.384	0.00	0.00
6963	1541413.689	734287.4309	0.00	0.00
6964	1541411.69	734287.4777	0.00	-0.02
6965	1541409.691	734287.5246	0.00	-0.03
6966	1541407.692	734287.5715	0.00	-0.04
6967	1541405.693	734287.6184	0.00	-0.05
6968	1541404.196	734285.9211	0.00	-0.48
6969	1541402.197	734285.968	0.00	-0.41
6970	1541400.197	734286.0149	0.00	-0.33
6971	1541398.197	734286.0618	0.00	-0.26

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3121	1541427.682	734201.0955	0.43	0.00
3122	1541425.839	734201.8819	0.35	0.00
3123	1541423.99	734202.6998	0.27	0.00
3124	1541422.106	734203.7966	0.19	0.00
3125	1541420.453	734203.0558	0.06	0.00
3126	1541418.584	734204.0207	0.00	0.00
3127	1541416.91	734203.4471	0.00	0.00
3128	1541347.876	734132.9206	0.00	-1.59
3129	1541346.376	734131.7239	0.00	-2.01
3130	1541344.817	734130.7647	0.00	-1.35
3131	1541343.218	734129.8801	0.00	-0.46
3132	1541341.439	734129.0534	1.28	0.00
3133	1541339.391	734128.0205	0.40	0.00
3134	1541339.221	734126.0402	0.40	0.00
3135	1541337.346	734124.5366	0.00	-0.24
3136	1541337.296	734122.5411	0.00	-0.21
3137	1541337.26	734120.5191	0.00	-0.18
3138	1541337.244	734118.5225	0.00	-0.21
3139	1541337.22	734116.5259	0.00	-0.27
3140	1541337.197	734114.5299	0.00	-0.31
3141	1541337.171	734112.5337	0.00	-0.37
3142	1541335.42	734110.9244	0.00	-0.64
3143	1541335.394	734108.9282	0.00	-0.63
3144	1541335.369	734106.9341	0.00	-0.69
3145	1541335.345	734104.9407	0.00	-0.74
3146	1541335.312	734102.9541	0.00	-0.77
3147	1541336.996	734102.5767	0.00	-0.59
3148	1541336.957	734100.5712	0.00	-0.62
3149	1541337.191	734098.7581	0.00	-0.44
3150	1541337.817	734096.9965	0.00	-0.23
3151	1541338.747	734095.2497	0.00	0.00
3152	1541514.767	734091.1791	0.01	0.00
3153	1541515.699	734092.8901	0.00	-0.08
3154	1541517.098	734094.5901	0.00	-0.15
3155	1541518.749	734096.2842	0.00	-0.15
3156	1541520.204	734097.9829	0.00	-0.08
3157	1541521.147	734099.6926	0.00	-0.50
3158	1541521.615	734101.4125	0.00	-1.13
3159	1541521.969	734103.1347	0.00	-1.66
3160	1541522.648	734104.8488	0.00	-1.95
3161	1541521.749	734106.6013	0.00	-2.66
3162	1541520.705	734108.3571	0.00	-3.43
3163	1541521.39	734110.0714	0.00	-3.69
3164	1541522.05	734111.7865	0.00	-3.42
3165	1541520.755	734113.5488	0.00	-3.50
3166	1541520.011	734115.2974	0.00	-3.45
3167	1541519.755	734117.0335	0.00	-3.34
3168	1541519.414	734118.7717	0.00	-3.23
3169	1541518.561	734120.5218	0.00	-3.17
3170	1541517.46	734122.2784	0.00	-3.10
3171	1541516.343	734124.037	0.00	-3.04
3172	1541517.239	734125.7169	0.00	-2.60
3173	1541516.119	734127.4205	0.00	-2.60
3174	1541517.137	734129.007	0.00	-2.60
3175	1541516.028	734130.6664	0.00	-2.60
3176	1541517.039	734132.2647	0.00	-2.60
3177	1541515.923	734133.9246	0.00	-2.60
3178	1541516.935	734135.5189	0.00	-2.60
3179	1541515.831	734137.1845	0.00	-2.60
3180	1541516.759	734138.9195	0.00	-2.60
3181	1541517.597	734140.8	0.00	-2.60
3182	1541516.5	734142.4691	0.00	-2.60
3183	1541515.389	734144.1285	0.00	-2.60
3184	1541514.261	734145.7766	0.00	-2.43
3185	1541515.103	734147.6015	0.00	-2.20
3186	1541515.679	734149.8008	0.00	-1.91
3187	1541514.533	734151.4381	0.00	-1.76
3188	1541513.38	734153.071	0.00	-1.61
3189	1541512.21	734154.6975	0.00	-1.35
3190	1541511.011	734156.2914	0.00	-0.98
3191	1541509.78	734157.8588	0.00	-0.63
3192	1541508.519	734159.4003	0.00	-0.27
3193	1541507.265	734160.9603	0.00	0.00
3194	1541506.039	734162.5411	0.00	0.00
3195	1541504.896	734164.1622	0.00	0.00
3196	1541503.727	734165.5096	0.00	0.00
3197	1541502.973	734167.1889	0.00	0.00
3198	1541502.021	734168.9195	0.00	0.00
3199	1541501.156	734170.7176	0.00	0.00
3200	1541500.345	734172.5441	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
6972	1541396.197	734286.1088	0.00	-0.18
6973	1541394.197	734286.1557	0.00	-0.11
6974	1541393.381	734284.4423	0.00	-0.94
6975	1541391.381	734284.4893	0.00	-0.86
6976	1541389.381	734284.5362	0.00	-0.79
6977	1541387.381	734284.5831	0.00	-0.71
6978	1541386.625	734282.8682	0.00	-1.39
6979	1541385.627	734281.1596	0.00	-0.52
6980	1541384.831	734279.4471	0.19	0.00
6981	1541383.62	734277.7446	1.13	0.00
6982	1541382.18	734276.0478	2.23	0.00
6983	1541380.182	734276.095	2.73	0.00
6984	1541379.103	734274.389	2.79	0.00
6985	1541377.931	734272.6855	2.85	0.00
6986	1541377.148	734270.973	2.89	0.00
6987	1541376.306	734269.2612	2.94	0.00
6988	1541375.121	734267.5512	3.09	0.00
6989	1541374.255	734265.8153	3.41	0.00
6990	1541372.318	734265.8219	3.25	0.00
6991	1541371.286	734263.9304	3.19	0.00
6992	1541369.671	734261.9845	2.97	0.00
6993	1541367.976	734260.3004	2.65	0.00
6994	1541366.967	734258.6754	2.60	0.00
6995	1541366.326	734257.0298	2.66	0.00
6996	1541364.334	734257.1623	2.35	0.00
6997	1541362.349	734257.1593	2.18	0.00
6998	1541361.783	734255.4373	2.43	0.00
6999	1541361.319	734253.7085	2.69	0.00
7000	1541360.847	734251.9754	2.44	0.00
7001	1541358.872	734251.7006	1.98	0.00
7002	1541356.933	734251.2561	1.54	0.00
7003	1541356.281	734249.3036	1.50	0.00
7004	1541355.918	734247.4055	1.54	0.00
7005	1541354.062	734246.6079	1.24	0.00
7006	1541352.328	734245.6604	0.97	0.00
7007	1541350.634	734244.6238	0.80	0.00
7008	1541348.983	734243.5132	0.87	0.00
7009	1541349.247	734241.5898	0.52	0.00
7010	1541349.859	734239.9031	0.17	0.00
7011	1541350.485	734238.2348	0.03	0.00
7012	1541350.894	734236.3956	0.00	-0.08
7013	1541350.932	734234.2801	0.00	-0.09
7014	1541350.743	734231.9953	0.00	-0.34
7015	1541350.662	734229.7879	0.00	-0.59
7016	1541338.808	734219.7733	0.00	-1.23
7017	1541336.974	734218.5699	0.00	-1.03
7018	1541335.063	734217.5564	0.00	-0.67
7019	1541333.225	734216.4732	0.00	-0.32
7020	1541437.597	734288.6027	0.00	-2.03
7021	1541435.597	734288.6496	0.00	-1.80
7022	1541433.597	734288.6966	0.00	-1.56
7023	1541431.597	734288.7435	0.00	-1.31
7024	1541429.597	734288.7904	0.00	-1.08
7025	1541427.596	734288.8373	0.00	-0.83
7026	1541425.596	734288.8842	0.00	-0.60
7027	1541423.596	734288.9312	0.00	-0.36
7028	1541421.596	734288.9781	0.00	-0.13
7029	1541419.595	734289.025	0.00	-0.13
7030	1541417.595	734289.0719	0.00	-0.12
7031	1541415.595	734289.1188	0.00	-0.13
7032	1541413.595	734289.1658	0.00	-0.14
7033	1541411.595	734289.2127	0.00	-0.15
7034	1541409.594	734289.2596	0.00	-0.17
7035	1541407.594	734289.3065	0.00	-0.19
7036	1541405.594	734289.3534	0.00	-0.20
7037	1541403.694	734287.6653	0.00	-0.06
7038	1541401.695	734287.7122	0.00	-0.08
7039	1541399.696	734287.7591	0.00	-0.09
7040	1541397.697	734287.806	0.00	-0.10
7041	1541395.698	734287.8529	0.00	-0.11
7042	1541393.699	734287.8998	0.00	-0.12
7043	1541392.198	734286.2026	0.00	-0.04
7044	1541390.198	734286.2495	0.00	0.00
7045	1541388.198	734286.2964	0.00	-0.01
7046	1541386.199	734286.3433	0.00	-0.02
7047	1541385.381	734284.6301	0.00	-0.64
7048	1541384.626	734282.9151	0.00	-0.81
7049	1541383.629	734281.2066	0.08	0.00
7050	1541382.834	734279.4941	0.88	0.00
7051	1541381.622	734277.7917	1.87	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3201	1541499.542	734174.3733	0.00	0.00
3202	1541498.684	734176.1749	0.00	0.00
3203	1541497.737	734177.9306	0.00	0.00
3204	1541496.716	734179.6475	0.00	0.00
3205	1541494.776	734179.4815	0.00	0.00
3206	1541492.833	734179.3238	0.00	0.00
3207	1541491.771	734181.0167	0.00	0.00
3208	1541489.866	734180.7897	0.00	-0.06
3209	1541487.825	734180.7772	0.00	-0.49
3210	1541485.685	734180.9179	0.00	-0.95
3211	1541483.626	734180.9251	0.00	-1.40
3212	1541482.549	734182.608	0.00	-1.45
3213	1541480.468	734182.6458	0.00	-1.93
3214	1541479.388	734184.3239	0.00	-1.93
3215	1541478.306	734186.0007	0.00	-0.28
3216	1541476.12	734186.1978	0.30	0.00
3217	1541473.945	734186.3756	0.47	0.00
3218	1541471.793	734186.5159	0.63	0.00
3219	1541470.705	734188.1918	0.90	0.00
3220	1541468.47	734188.4711	0.41	0.00
3221	1541466.337	734188.6248	0.61	0.00
3222	1541465.081	734190.1026	0.62	0.00
3223	1541464.052	734191.6189	0.59	0.00
3224	1541462.107	734191.1992	0.93	0.00
3225	1541460.324	734191.1978	1.19	0.00
3226	1541458.501	734191.925	1.37	0.00
3227	1541456.626	734192.9179	1.56	0.00
3228	1541454.818	734193.4721	1.79	0.00
3229	1541452.974	734194.2625	1.68	0.00
3230	1541451.128	734195.0677	1.58	0.00
3231	1541449.281	734195.866	1.47	0.00
3232	1541447.446	734196.5776	1.37	0.00
3233	1541445.63	734197.1498	1.31	0.00
3234	1541443.798	734197.8412	1.27	0.00
3235	1541441.985	734198.3852	1.22	0.00
3236	1541440.167	734198.9563	1.17	0.00
3237	1541438.297	734199.9399	1.15	0.00
3238	1541436.504	734200.3155	1.09	0.00
3239	1541434.723	734200.6052	0.97	0.00
3240	1541432.865	734201.4969	0.88	0.00
3241	1541431.06	734201.9687	0.74	0.00
3242	1541429.281	734202.2437	0.58	0.00
3243	1541427.431	734203.0767	0.50	0.00
3244	1541425.587	734203.8641	0.42	0.00
3245	1541423.739	734204.6823	0.33	0.00
3246	1541421.855	734205.7804	0.25	0.00
3247	1541420.202	734205.0406	0.12	0.00
3248	1541418.333	734206.0062	0.04	0.00
3249	1541416.659	734205.4321	0.00	0.00
3250	1541347.424	734134.8696	0.00	-1.69
3251	1541345.925	734133.673	0.00	-1.42
3252	1541344.37	734132.7138	0.00	-0.88
3253	1541342.792	734131.8245	0.11	0.00
3254	1541341.12	734131.0166	1.04	0.00
3255	1541339.27	734129.9936	0.22	0.00
3256	1541337.403	734128.5255	0.00	-0.38
3257	1541337.372	734126.5468	0.00	-0.33
3258	1541335.596	734124.9156	0.00	-0.54
3259	1541335.566	734122.9164	0.00	-0.54
3260	1541335.542	734120.917	0.00	-0.53
3261	1541335.516	734118.9152	0.00	-0.57
3262	1541335.493	734116.9172	0.00	-0.60
3263	1541335.469	734114.9189	0.00	-0.64
3264	1541335.444	734112.9214	0.00	-0.65
3265	1541333.698	734111.6494	0.00	-0.85
3266	1541333.673	734109.6521	0.00	-0.84
3267	1541333.649	734107.6555	0.00	-0.84
3268	1541333.625	734105.6597	0.00	-0.91
3269	1541333.599	734103.6671	0.00	-0.95
3270	1541333.574	734101.6895	0.00	-0.99
3271	1541335.29	734100.9559	0.00	-0.81
3272	1541335.239	734098.8825	0.00	-0.64
3273	1541335.865	734097.0646	0.00	-0.42
3274	1541336.747	734095.2959	0.00	-0.18
3275	1541516.768	734091.1328	0.01	0.00
3276	1541517.698	734092.8439	0.00	-0.08
3277	1541519.097	734094.5438	0.00	-0.16
3278	1541520.748	734096.2378	0.00	0.00
3279	1541522.202	734097.9365	0.00	-0.21
3280	1541523.145	734099.646	0.00	-0.53

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7052	1541379.625	734277.8388	2.55	0.00
7053	1541378.183	734276.1423	2.81	0.00
7054	1541377.105	734274.4363	2.87	0.00
7055	1541375.934	734272.7329	2.93	0.00
7056	1541375.15	734271.0207	2.97	0.00
7057	1541374.309	734269.3083	3.02	0.00
7058	1541373.124	734267.6013	3.09	0.00
7059	1541371.133	734267.6438	2.97	0.00
7060	1541370.316	734265.9039	2.95	0.00
7061	1541369.266	734264.053	2.82	0.00
7062	1541367.674	734262.1864	2.53	0.00
7063	1541365.951	734260.4893	2.28	0.00
7064	1541364.966	734258.8585	2.28	0.00
7065	1541362.995	734258.9027	2.00	0.00
7066	1541361.018	734258.7743	1.78	0.00
7067	1541360.348	734257.0379	1.95	0.00
7068	1541359.797	734255.2656	2.07	0.00
7069	1541359.338	734253.4893	2.08	0.00
7070	1541357.383	734253.1126	1.60	0.00
7071	1541355.432	734252.5848	1.17	0.00
7072	1541355.021	734250.6724	1.12	0.00
7073	1541354.415	734248.5981	1.15	0.00
7074	1541352.592	734247.7756	0.86	0.00
7075	1541350.877	734246.7872	0.79	0.00
7076	1541349.103	734245.6432	0.90	0.00
7077	1541347.335	734244.4042	0.95	0.00
7078	1541347.378	734242.3648	0.39	0.00
7079	1541347.68	734240.3936	0.06	0.00
7080	1541348.233	734238.7292	0.00	0.00
7081	1541348.874	734237.0602	0.00	-0.05
7082	1541349.283	734235.2182	0.00	-0.10
7083	1541349.321	734233.0994	0.00	-0.17
7084	1541349.13	734230.813	0.00	-0.43
7085	1541349.048	734228.6051	0.00	-0.70
7086	1541339.366	734221.5084	0.00	-1.20
7087	1541337.19	734220.5269	0.00	-1.01
7088	1541335.137	734219.5673	0.00	-0.76
7089	1541333.249	734218.4738	0.00	-0.44
7090	1541403.594	734289.4003	0.00	-0.21
7091	1541401.594	734289.4473	0.00	-0.22
7092	1541399.593	734289.4942	0.00	-0.23
7093	1541397.593	734289.5411	0.00	-0.25
7094	1541395.593	734289.588	0.00	-0.33
7095	1541393.593	734289.6349	0.00	-0.48
7096	1541391.7	734287.9467	0.00	-0.22
7097	1541389.702	734287.9935	0.00	-0.31
7098	1541387.703	734288.0404	0.00	-0.35
7099	1541385.704	734288.0873	0.00	-0.39
7100	1541384.199	734286.3903	0.00	-0.03
7101	1541383.381	734284.677	0.00	-0.57
7102	1541382.628	734282.9621	0.00	-0.23
7103	1541381.631	734281.2536	0.69	0.00
7104	1541380.837	734279.5411	1.56	0.00
7105	1541378.84	734279.5881	2.19	0.00
7106	1541377.627	734277.8859	2.81	0.00
7107	1541376.185	734276.1896	2.88	0.00
7108	1541375.107	734274.4837	2.94	0.00
7109	1541373.937	734272.7804	2.98	0.00
7110	1541373.153	734271.0682	3.01	0.00
7111	1541372.31	734269.3566	3.02	0.00
7112	1541370.313	734269.4038	2.67	0.00
7113	1541369.137	734267.6962	2.63	0.00
7114	1541368.315	734265.963	2.55	0.00
7115	1541367.263	734264.1515	2.39	0.00
7116	1541365.681	734262.3032	2.11	0.00
7117	1541363.739	734260.7321	1.90	0.00
7118	1541361.62	734260.5673	1.56	0.00
7119	1541359.81	734260.2127	1.42	0.00
7120	1541359.001	734258.6231	1.38	0.00
7121	1541358.363	734256.7885	1.46	0.00
7122	1541357.826	734254.9619	1.62	0.00
7123	1541355.917	734254.4835	1.24	0.00
7124	1541354.043	734254.0583	0.80	0.00
7125	1541353.415	734252.0084	0.72	0.00
7126	1541353.19	734249.9001	0.82	0.00
7127	1541351.15	734249.0909	0.70	0.00
7128	1541349.421	734247.7371	0.88	0.00
7129	1541347.497	734246.5003	0.91	0.00
7130	1541345.696	734245.3839	0.76	0.00
7131	1541345.649	734243.2897	0.70	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3281	1541523.611	734101.3658	0.00	-0.94
3282	1541523.966	734103.0877	0.00	-1.26
3283	1541524.645	734104.8015	0.00	-1.48
3284	1541523.747	734106.5538	0.00	-2.15
3285	1541522.702	734108.3096	0.00	-2.87
3286	1541523.388	734110.0236	0.00	-3.22
3287	1541524.048	734111.7384	0.00	-3.00
3288	1541522.752	734113.5006	0.00	-3.12
3289	1541522.008	734115.2493	0.00	-3.04
3290	1541521.751	734116.9851	0.00	-2.92
3291	1541521.409	734118.7233	0.00	-2.82
3292	1541520.558	734120.4734	0.00	-2.80
3293	1541519.46	734122.2302	0.00	-2.75
3294	1541518.352	734123.9825	0.00	-2.65
3295	1541519.311	734125.6424	0.00	-2.60
3296	1541518.23	734127.335	0.00	-2.60
3297	1541519.259	734128.9383	0.00	-2.60
3298	1541518.155	734130.6055	0.00	-2.60
3299	1541519.166	734132.2044	0.00	-2.60
3300	1541518.048	734133.8598	0.00	-2.60
3301	1541518.964	734135.5912	0.00	-2.60
3302	1541517.856	734137.252	0.00	-2.60
3303	1541518.689	734139.128	0.00	-2.60
3304	1541519.554	734140.966	0.00	-2.60
3305	1541518.463	734142.6396	0.00	-2.60
3306	1541517.361	734144.3054	0.00	-2.56
3307	1541516.24	734145.9586	0.00	-2.37
3308	1541516.824	734148.1623	0.00	-2.04
3309	1541517.299	734150.5051	0.00	-1.70
3310	1541516.153	734152.144	0.00	-1.61
3311	1541515.004	734153.7815	0.00	-1.53
3312	1541513.841	734155.4099	0.00	-1.40
3313	1541512.656	734157.0266	0.00	-1.09
3314	1541511.434	734158.5936	0.00	-0.73
3315	1541510.16	734160.1396	0.00	-0.37
3316	1541508.888	734161.6642	0.00	-0.01
3317	1541507.63	734163.2589	0.00	0.00
3318	1541506.454	734164.8939	0.00	0.00
3319	1541505.137	734166.64	0.00	0.00
3320	1541504.131	734168.5988	0.00	0.00
3321	1541503.196	734170.4003	0.00	0.00
3322	1541502.363	734172.2244	0.00	0.00
3323	1541501.577	734174.0646	0.00	0.00
3324	1541500.771	734175.893	0.00	0.00
3325	1541499.881	734177.6793	0.00	0.00
3326	1541498.894	734179.416	0.00	0.00
3327	1541497.848	734181.1209	0.00	0.00
3328	1541495.66	734181.3448	0.00	0.00
3329	1541493.718	734181.1768	0.00	0.00
3330	1541492.65	734182.8665	0.00	0.00
3331	1541490.702	734182.7049	0.00	0.00
3332	1541488.796	734182.4757	0.00	-0.07
3333	1541486.752	734182.4633	0.00	-0.51
3334	1541484.608	734182.6045	0.00	-0.98
3335	1541483.529	734184.289	0.00	-1.02
3336	1541481.47	734184.289	0.00	-1.51
3337	1541480.388	734185.9684	0.00	-0.59
3338	1541479.304	734187.6468	1.05	0.00
3339	1541477.223	734187.6765	1.31	0.00
3340	1541475.035	734187.8747	1.60	0.00
3341	1541472.859	734188.0525	1.64	0.00
3342	1541471.77	734189.7285	1.35	0.00
3343	1541469.612	734189.8678	0.56	0.00
3344	1541467.349	734190.1593	0.28	0.00
3345	1541466.252	734191.8179	0.23	0.00
3346	1541465.185	734193.4827	0.16	0.00
3347	1541463.227	734193.3755	0.48	0.00
3348	1541461.621	734193.0913	0.76	0.00
3349	1541460.066	734193.1804	1.00	0.00
3350	1541458.214	734193.8964	1.17	0.00
3351	1541456.38	734194.9072	1.53	0.00
3352	1541454.566	734195.4523	1.82	0.00
3353	1541452.723	734196.2418	1.70	0.00
3354	1541450.876	734197.0493	1.62	0.00
3355	1541449.028	734197.8505	1.55	0.00
3356	1541447.194	734198.5597	1.51	0.00
3357	1541445.378	734199.13	1.46	0.00
3358	1541443.546	734199.8229	1.42	0.00
3359	1541441.733	734200.3673	1.37	0.00
3360	1541439.915	734200.9386	1.32	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7132	1541346.194	734241.1994	0.16	0.00
7133	1541345.974	734239.255	0.00	-0.13
7134	1541346.612	734237.5659	0.00	-0.12
7135	1541347.259	734235.8918	0.00	-0.10
7136	1541347.677	734234.0387	0.00	-0.07
7137	1541347.709	734231.918	0.00	-0.25
7138	1541347.517	734229.6305	0.00	-0.52
7139	1541347.435	734227.4223	0.00	-0.80
7140	1541340.98	734222.6912	0.00	-1.21
7141	1541339.485	734223.6845	0.00	-1.11
7142	1541337.774	734222.4471	0.00	-0.95
7143	1541335.362	734221.6397	0.00	-0.61
7144	1541333.273	734220.4744	0.00	-0.37
7145	1541391.592	734289.6819	0.00	-0.64
7146	1541389.592	734289.7288	0.00	-0.75
7147	1541387.592	734289.7757	0.00	-0.79
7148	1541385.592	734289.8226	0.00	-0.83
7149	1541383.705	734288.1342	0.00	-0.43
7150	1541382.199	734286.4372	0.00	-0.04
7151	1541381.381	734284.724	0.00	-0.47
7152	1541380.629	734283.009	0.37	0.00
7153	1541379.633	734281.3006	1.31	0.00
7154	1541377.635	734281.3476	1.84	0.00
7155	1541376.843	734279.6352	2.66	0.00
7156	1541375.63	734277.9331	2.76	0.00
7157	1541374.187	734276.2369	2.67	0.00
7158	1541373.11	734274.5312	2.66	0.00
7159	1541371.94	734272.828	2.62	0.00
7160	1541371.155	734271.1161	2.65	0.00
7161	1541369.158	734271.1639	2.26	0.00
7162	1541368.315	734269.4525	2.29	0.00
7163	1541367.14	734267.7458	2.18	0.00
7164	1541366.314	734266.0194	2.06	0.00
7165	1541365.276	734264.247	1.88	0.00
7166	1541363.878	734262.587	1.69	0.00
7167	1541361.816	734262.4832	1.31	0.00
7168	1541359.8	734261.9067	1.15	0.00
7169	1541357.946	734260.4992	0.94	0.00
7170	1541357.003	734258.3403	0.92	0.00
7171	1541356.361	734256.4407	1.01	0.00
7172	1541354.596	734255.8183	0.81	0.00
7173	1541352.846	734256.2003	0.46	0.00
7174	1541352.398	734253.9305	0.55	0.00
7175	1541351.17	734252.2774	0.59	0.00
7176	1541351.677	734250.8638	0.61	0.00
7177	1541349.496	734251.0032	0.74	0.00
7178	1541349.144	734249.33	0.85	0.00
7179	1541347.492	734248.3984	0.80	0.00
7180	1541345.713	734247.4048	0.60	0.00
7181	1541343.979	734246.9214	0.47	0.00
7182	1541343.955	734244.9291	0.47	0.00
7183	1541343.918	734243.0007	0.30	0.00
7184	1541345.068	734241.114	0.18	0.00
7185	1541343.969	734239.4536	0.00	-0.08
7186	1541344.265	734237.8434	0.00	-0.07
7187	1541344.935	734236.3318	0.00	-0.11
7188	1541345.685	734234.7028	0.00	-0.10
7189	1541346.071	734232.8541	0.00	-0.08
7190	1541346.098	734230.7354	0.00	-0.34
7191	1541345.904	734228.448	0.00	-0.63
7192	1541345.821	734226.2395	0.00	-0.94
7193	1541342.594	734223.874	0.00	-1.12
7194	1541341.068	734224.8994	0.00	-1.17
7195	1541339.701	734226.0735	0.00	-0.95
7196	1541338.231	734224.8564	0.00	-0.81
7197	1541336.645	734223.462	0.00	-0.67
7198	1541335.026	734223.7294	0.00	-0.38
7199	1541333.297	734222.475	0.00	-0.20
7200	1541383.592	734289.8695	0.00	-0.87
7201	1541381.706	734288.1811	0.00	-0.48
7202	1541380.2	734286.4841	0.00	-0.08
7203	1541379.382	734284.771	0.10	0.00
7204	1541378.631	734283.056	0.93	0.00
7205	1541376.632	734283.103	1.30	0.00
7206	1541375.637	734281.3946	2.04	0.00
7207	1541374.847	734279.6823	2.45	0.00
7208	1541373.632	734277.9804	2.40	0.00
7209	1541372.188	734276.2843	2.31	0.00
7210	1541371.112	734274.5787	2.28	0.00
7211	1541369.944	734272.8758	2.22	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3361	1541438.044	734201.9251	1.30	0.00
3362	1541436.253	734202.2992	1.22	0.00
3363	1541434.471	734202.5877	1.09	0.00
3364	1541432.613	734203.4798	1.00	0.00
3365	1541430.808	734203.9518	0.85	0.00
3366	1541429.029	734204.2256	0.67	0.00
3367	1541427.18	734205.0576	0.56	0.00
3368	1541425.336	734205.8459	0.47	0.00
3369	1541423.488	734206.6646	0.38	0.00
3370	1541421.604	734207.7639	0.30	0.00
3371	1541419.951	734207.0252	0.17	0.00
3372	1541418.082	734207.9915	0.11	0.00
3373	1541416.408	734207.417	0.00	0.00
3374	1541346.972	734136.8185	0.00	-1.50
3375	1541345.467	734135.6263	0.00	-1.00
3376	1541343.926	734134.6595	0.00	-0.58
3377	1541342.368	734133.7715	0.52	0.00
3378	1541340.807	734132.9642	0.77	0.00
3379	1541339.164	734131.9731	0.01	0.00
3380	1541337.406	734130.5166	0.00	-0.39
3381	1541335.643	734128.9121	0.00	-0.55
3382	1541335.618	734126.9147	0.00	-0.55
3383	1541333.867	734125.6391	0.00	-0.71
3384	1541333.843	734123.641	0.00	-0.70
3385	1541333.818	734121.6415	0.00	-0.70
3386	1541333.794	734119.6429	0.00	-0.74
3387	1541333.77	734117.6439	0.00	-0.77
3388	1541333.746	734115.6455	0.00	-0.81
3389	1541333.722	734113.6473	0.00	-0.84
3390	1541331.975	734112.4409	0.00	-1.04
3391	1541331.951	734110.4403	0.00	-1.05
3392	1541331.927	734108.4397	0.00	-1.04
3393	1541331.903	734106.439	0.00	-1.07
3394	1541331.879	734104.4384	0.00	-1.13
3395	1541331.855	734102.4378	0.00	-1.16
3396	1541331.831	734100.4372	0.00	-1.10
3397	1541333.557	734099.7202	0.00	-0.87
3398	1541333.325	734098.0188	0.00	-0.74
3399	1541333.983	734096.9082	0.00	-0.58
3400	1541334.747	734095.3422	0.00	-0.37
3401	1541518.768	734091.0866	0.01	0.00
3402	1541519.697	734092.7977	0.00	-0.08
3403	1541521.097	734094.4975	0.00	-0.03
3404	1541522.748	734096.1914	0.01	0.00
3405	1541524.2	734097.89	0.00	-0.07
3406	1541525.142	734099.5993	0.00	-0.32
3407	1541525.607	734101.3189	0.00	-0.61
3408	1541525.963	734103.0405	0.00	-0.79
3409	1541526.643	734104.754	0.00	-0.97
3410	1541525.744	734106.5062	0.00	-1.60
3411	1541524.698	734108.2618	0.00	-2.29
3412	1541525.385	734109.9754	0.00	-2.61
3413	1541526.046	734111.6892	0.00	-2.60
3414	1541524.749	734113.4526	0.00	-2.70
3415	1541524.004	734115.2007	0.00	-2.67
3416	1541523.747	734116.9368	0.00	-2.60
3417	1541523.403	734118.6747	0.00	-2.60
3418	1541522.554	734120.4245	0.00	-2.60
3419	1541521.468	734122.1761	0.00	-2.60
3420	1541520.383	734123.9194	0.00	-2.60
3421	1541521.393	734125.5571	0.00	-2.60
3422	1541520.339	734127.2569	0.00	-2.60
3423	1541521.368	734128.8724	0.00	-2.60
3424	1541520.277	734130.5449	0.00	-2.60
3425	1541521.199	734132.2841	0.00	-2.60
3426	1541520.081	734133.9373	0.00	-2.60
3427	1541520.905	734135.8031	0.00	-2.60
3428	1541519.79	734137.4611	0.00	-2.60
3429	1541520.647	734139.2936	0.00	-2.60
3430	1541521.26	734141.5158	0.00	-2.60
3431	1541520.173	734143.1928	0.00	-2.53
3432	1541519.077	734144.8628	0.00	-2.37
3433	1541517.96	734146.5187	0.00	-2.23
3434	1541518.446	734148.8668	0.00	-1.88
3435	1541519.292	734150.6802	0.00	-1.60
3436	1541518.143	734152.3166	0.00	-1.45
3437	1541516.998	734153.9559	0.00	-1.38
3438	1541515.844	734155.5961	0.00	-1.30
3439	1541514.653	734157.2298	0.00	-1.19
3440	1541513.426	734159.0486	0.00	-0.91

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7212	1541367.947	734272.9236	1.77	0.00
7213	1541367.161	734271.2121	1.81	0.00
7214	1541366.317	734269.5011	1.77	0.00
7215	1541365.143	734267.7952	1.60	0.00
7216	1541364.313	734266.0687	1.52	0.00
7217	1541363.254	734264.2876	1.40	0.00
7218	1541361.474	734264.5008	0.97	0.00
7219	1541359.741	734263.9988	0.74	0.00
7220	1541358.027	734262.6343	0.80	0.00
7221	1541356.286	734261.9847	0.47	0.00
7222	1541355.995	734259.9389	0.57	0.00
7223	1541354.75	734257.7953	0.56	0.00
7224	1541352.759	734258.3215	0.24	0.00
7225	1541351.038	734257.6849	0.14	0.00
7226	1541351.028	734255.7417	0.30	0.00
7227	1541350.728	734253.9178	0.59	0.00
7228	1541349.2	734253.048	0.55	0.00
7229	1541347.521	734252.2675	0.45	0.00
7230	1541347.466	734250.3262	0.60	0.00
7231	1541345.733	734249.3995	0.41	0.00
7232	1541344.001	734248.9166	0.23	0.00
7233	1541342.265	734248.4239	0.10	0.00
7234	1541342.241	734246.4294	0.22	0.00
7235	1541342.209	734244.4327	0.02	0.00
7236	1541342.157	734242.4702	0.00	-0.04
7237	1541343.617	734241.1748	0.07	0.00
7238	1541342.122	734240.4298	0.00	-0.03
7239	1541342.193	734238.5096	0.00	-0.04
7240	1541342.397	734236.5825	0.00	-0.06
7241	1541343.559	734235.027	0.00	-0.12
7242	1541344.125	734233.4776	0.00	-0.11
7243	1541344.464	734231.6663	0.00	-0.18
7244	1541344.485	734229.5541	0.00	-0.45
7245	1541344.291	734227.2666	0.00	-0.82
7246	1541344.207	734225.0567	0.00	-1.03
7247	1541342.683	734226.0813	0.00	-1.04
7248	1541341.294	734227.1789	0.00	-0.92
7249	1541339.825	734228.1355	0.00	-0.67
7250	1541338.255	734227.4765	0.00	-0.59
7251	1541336.768	734225.4454	0.00	-0.52
7252	1541335.034	734225.7095	0.00	-0.21
7253	1541333.321	734224.4757	0.00	-0.03
7254	1541381.591	734289.9165	0.00	-0.92
7255	1541379.707	734288.228	0.00	-0.52
7256	1541378.2	734286.531	0.00	-0.12
7257	1541377.382	734284.8179	0.52	0.00
7258	1541375.382	734284.8649	0.72	0.00
7259	1541374.634	734283.15	1.43	0.00
7260	1541373.639	734281.4417	1.87	0.00
7261	1541372.85	734279.7295	2.05	0.00
7262	1541371.635	734278.0277	2.00	0.00
7263	1541370.19	734276.3318	1.88	0.00
7264	1541369.115	734274.6264	1.84	0.00
7265	1541367.118	734274.6742	1.40	0.00
7266	1541365.951	734272.9717	1.33	0.00
7267	1541365.164	734271.2607	1.27	0.00
7268	1541364.321	734269.5509	1.19	0.00
7269	1541363.152	734267.8496	1.02	0.00
7270	1541362.326	734266.1563	0.96	0.00
7271	1541360.33	734266.1319	0.47	0.00
7272	1541358.453	734266.0693	0.25	0.00
7273	1541357.866	734264.4662	0.56	0.00
7274	1541356.25	734263.997	0.39	0.00
7275	1541354.546	734263.4601	0.24	0.00
7276	1541354.526	734261.4896	0.25	0.00
7277	1541354.268	734259.6086	0.34	0.00
7278	1541352.751	734260.4075	0.14	0.00
7279	1541351.05	734259.6875	0.05	0.00
7280	1541349.312	734259.0608	0.02	0.00
7281	1541349.287	734257.062	0.25	0.00
7282	1541349.234	734255.0914	0.33	0.00
7283	1541347.521	734254.2857	0.25	0.00
7284	1541345.788	734253.3931	0.17	0.00
7285	1541345.756	734251.4037	0.39	0.00
7286	1541344.025	734250.9121	0.26	0.00
7287	1541342.29	734250.4213	0.14	0.00
7288	1541340.555	734250.0495	0.00	0.00
7289	1541340.53	734248.0522	0.00	0.00
7290	1541340.505	734246.0557	0.01	0.00
7291	1541340.475	734244.0622	0.01	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3441	1541511.96	734160.674	0.00	-0.51
3442	1541510.697	734162.2421	0.00	-0.15
3443	1541509.38	734163.5085	0.00	0.00
3444	1541508.464	734165.0642	0.00	0.00
3445	1541507.275	734166.6628	0.00	0.00
3446	1541506.214	734168.3301	0.00	0.00
3447	1541505.259	734170.0901	0.00	0.00
3448	1541504.387	734171.8888	0.00	0.00
3449	1541503.594	734173.7246	0.00	0.00
3450	1541502.827	734175.57	0.00	0.00
3451	1541502.004	734177.3879	0.00	0.00
3452	1541501.073	734179.1514	0.00	0.00
3453	1541500.051	734180.8682	0.00	0.00
3454	1541498.989	734182.5636	0.00	0.00
3455	1541496.782	734182.8141	0.00	0.00
3456	1541494.593	734183.0355	0.00	0.00
3457	1541493.523	734184.7241	0.00	0.00
3458	1541491.579	734184.5536	0.00	0.00
3459	1541489.629	734184.3905	0.00	0.00
3460	1541487.723	734184.1591	0.00	-0.09
3461	1541485.676	734184.147	0.00	-0.55
3462	1541484.597	734185.8287	0.00	-0.58
3463	1541482.446	734185.9716	0.00	-0.65
3464	1541481.362	734187.653	0.96	0.00
3465	1541480.276	734189.3333	2.57	0.00
3466	1541478.219	734189.3242	2.67	0.00
3467	1541476.138	734189.3515	2.79	0.00
3468	1541473.948	734189.5508	2.13	0.00
3469	1541472.86	734191.2259	1.81	0.00
3470	1541470.681	734191.4033	0.98	0.00
3471	1541468.524	734191.5412	0.16	0.00
3472	1541467.436	734193.2144	0.00	-0.08
3473	1541466.358	734194.8854	0.00	-0.19
3474	1541464.165	734195.1856	0.09	0.00
3475	1541462.499	734194.9545	0.38	0.00
3476	1541461.207	734195.1979	0.55	0.00
3477	1541459.61	734194.9911	0.82	0.00
3478	1541458.005	734195.9334	0.96	0.00
3479	1541456.125	734196.8878	1.65	0.00
3480	1541454.313	734197.4346	1.86	0.00
3481	1541452.471	734198.2213	1.77	0.00
3482	1541450.623	734199.0309	1.73	0.00
3483	1541448.776	734199.8348	1.70	0.00
3484	1541446.942	734200.5417	1.66	0.00
3485	1541445.126	734201.1102	1.61	0.00
3486	1541443.294	734201.8044	1.57	0.00
3487	1541441.48	734202.3493	1.52	0.00
3488	1541439.663	734202.9203	1.47	0.00
3489	1541437.791	734203.9146	1.45	0.00
3490	1541436.001	734204.2836	1.35	0.00
3491	1541434.221	734204.5717	1.23	0.00
3492	1541432.361	734205.4618	1.13	0.00
3493	1541430.556	734205.9346	0.95	0.00
3494	1541428.777	734206.2072	0.75	0.00
3495	1541426.928	734207.0381	0.62	0.00
3496	1541425.085	734207.8274	0.52	0.00
3497	1541423.236	734208.6464	0.44	0.00
3498	1541421.352	734209.7467	0.39	0.00
3499	1541419.7	734209.0097	0.26	0.00
3500	1541417.831	734209.9766	0.22	0.00
3501	1541416.157	734209.4019	0.10	0.00
3502	1541346.519	734138.7674	0.00	-1.20
3503	1541345.024	734137.5708	0.00	-0.70
3504	1541343.445	734136.6321	0.00	-0.15
3505	1541341.966	734135.7124	0.85	0.00
3506	1541340.497	734134.8903	0.39	0.00
3507	1541339.059	734133.9511	0.00	-0.25
3508	1541337.408	734132.5073	0.00	-0.40
3509	1541335.663	734130.9109	0.00	-0.56
3510	1541333.915	734129.6372	0.00	-0.72
3511	1541333.891	734127.6387	0.00	-0.71
3512	1541332.144	734126.4453	0.00	-0.87
3513	1541332.12	734124.4446	0.00	-0.87
3514	1541332.096	734122.444	0.00	-0.87
3515	1541332.072	734120.4434	0.00	-0.90
3516	1541332.048	734118.4428	0.00	-0.94
3517	1541332.024	734116.4422	0.00	-0.97
3518	1541332	734114.4415	0.00	-1.01
3519	1541331.807	734098.4366	0.00	-0.92
3520	1541331.783	734096.4359	0.00	-0.75

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7292	1541340.455	734242.0624	0.00	0.00
7293	1541340.425	734240.0574	0.00	0.00
7294	1541340.426	734238.0461	0.00	-0.02
7295	1541340.361	734236.1507	0.00	-0.04
7296	1541341.8	734234.9191	0.00	-0.08
7297	1541342.128	734233.629	0.00	-0.09
7298	1541342.505	734232.1905	0.00	-0.11
7299	1541342.834	734230.4759	0.00	-0.36
7300	1541342.871	734228.3806	0.00	-0.69
7301	1541341.157	734229.316	0.00	-0.51
7302	1541338.821	734229.8871	0.00	-0.27
7303	1541336.889	734229.1463	0.00	-0.22
7304	1541336.577	734227.2396	0.00	-0.33
7305	1541335.061	734227.7527	0.00	-0.04
7306	1541333.345	734226.4763	0.00	0.00
7307	1541379.591	734289.9634	0.00	-0.96
7308	1541377.708	734288.2749	0.00	-0.56
7309	1541376.2	734286.578	0.00	-0.02
7310	1541374.201	734286.6249	0.16	0.00
7311	1541373.382	734284.9119	0.81	0.00
7312	1541372.636	734283.197	1.26	0.00
7313	1541371.641	734281.4888	1.56	0.00
7314	1541370.854	734279.7767	1.63	0.00
7315	1541369.638	734278.0751	1.56	0.00
7316	1541368.193	734276.3794	1.44	0.00
7317	1541366.195	734276.4271	1.00	0.00
7318	1541365.121	734274.7222	0.92	0.00
7319	1541363.954	734273.0199	0.75	0.00
7320	1541363.167	734271.3089	0.70	0.00
7321	1541362.322	734269.5983	0.61	0.00
7322	1541361.143	734267.8955	0.43	0.00
7323	1541359.17	734267.8984	0.00	0.00
7324	1541357.115	734267.7843	0.00	0.00
7325	1541356.392	734265.994	0.33	0.00
7326	1541354.573	734265.4953	0.19	0.00
7327	1541352.831	734264.3915	0.12	0.00
7328	1541352.805	734262.3899	0.12	0.00
7329	1541351.065	734261.6909	0.07	0.00
7330	1541349.334	734261.0564	0.02	0.00
7331	1541347.595	734260.2763	0.01	0.00
7332	1541347.572	734258.2796	0.02	0.00
7333	1541347.542	734256.2839	0.15	0.00
7334	1541345.807	734255.3928	0.06	0.00
7335	1541344.074	734254.9026	0.01	0.00
7336	1541344.049	734252.9088	0.06	0.00
7337	1541342.314	734252.4181	0.01	0.00
7338	1541340.579	734252.0473	0.01	0.00
7339	1541338.844	734251.768	0.00	0.00
7340	1541338.82	734249.7688	0.00	0.00
7341	1541338.795	734247.7697	0.00	0.00
7342	1541338.77	734245.7718	0.00	0.00
7343	1541338.746	734243.7714	0.00	0.00
7344	1541338.723	734241.7731	0.00	0.00
7345	1541338.7	734239.7707	0.00	0.00
7346	1541338.666	734237.7837	0.00	-0.01
7347	1541338.638	734235.7855	0.00	-0.01
7348	1541340.287	734234.243	0.00	-0.04
7349	1541340.419	734232.5883	0.00	-0.04
7350	1541340.709	734231.0236	0.00	-0.15
7351	1541338.654	734231.8604	0.01	0.00
7352	1541336.883	734231.0813	0.01	0.00
7353	1541335.118	734229.7311	0.00	0.00
7354	1541333.369	734228.4769	0.00	0.00
7355	1541377.591	734290.0103	0.00	-0.99
7356	1541375.709	734288.3218	0.00	-0.43
7357	1541373.71	734288.3687	0.00	-0.31
7358	1541372.201	734286.6719	0.26	0.00
7359	1541371.383	734284.9589	0.67	0.00
7360	1541370.637	734283.2441	0.95	0.00
7361	1541369.644	734281.536	1.16	0.00
7362	1541368.857	734279.8239	1.20	0.00
7363	1541367.641	734278.1225	1.13	0.00
7364	1541365.645	734278.1701	0.69	0.00
7365	1541364.197	734276.475	0.51	0.00
7366	1541363.124	734274.7703	0.34	0.00
7367	1541361.958	734273.0684	0.18	0.00
7368	1541361.17	734271.3577	0.11	0.00
7369	1541360.322	734269.6494	0.02	0.00
7370	1541358.33	734269.6335	0.00	0.00
7371	1541356.312	734269.6237	0.00	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
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TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3521	1541332.746	734095.3884	0.00	-0.57
3522	1541520.768	734091.0403	0.01	0.00
3523	1541521.696	734092.7514	0.00	0.00
3524	1541523.096	734094.4512	0.00	0.00
3525	1541524.747	734096.145	0.02	0.00
3526	1541526.198	734097.8434	0.02	0.00
3527	1541527.139	734099.5526	0.00	-0.18
3528	1541527.603	734101.2719	0.00	-0.16
3529	1541527.959	734102.9932	0.00	-0.54
3530	1541528.64	734104.7063	0.00	-0.90
3531	1541527.74	734106.4583	0.00	-1.40
3532	1541526.695	734108.2139	0.00	-1.84
3533	1541527.382	734109.9273	0.00	-2.28
3534	1541528.044	734111.6419	0.00	-2.60
3535	1541526.744	734113.3994	0.00	-2.60
3536	1541526.002	734115.1537	0.00	-2.60
3537	1541525.74	734116.8905	0.00	-2.60
3538	1541525.402	734118.6255	0.00	-2.60
3539	1541524.558	734120.3692	0.00	-2.60
3540	1541523.494	734122.1105	0.00	-2.60
3541	1541522.437	734123.8418	0.00	-2.60
3542	1541523.468	734125.4761	0.00	-2.60
3543	1541522.43	734127.1817	0.00	-2.60
3544	1541523.378	734128.9421	0.00	-2.60
3545	1541522.303	734130.6219	0.00	-2.60
3546	1541523.145	734132.496	0.00	-2.60
3547	1541522.027	734134.1511	0.00	-2.60
3548	1541522.876	734135.9767	0.00	-2.60
3549	1541521.754	734137.6301	0.00	-2.60
3550	1541522.353	734139.8428	0.00	-2.60
3551	1541522.871	734142.2063	0.00	-2.39
3552	1541521.788	734143.8876	0.00	-2.28
3553	1541520.697	734145.5628	0.00	-2.15
3554	1541519.583	734147.2223	0.00	-2.05
3555	1541520.439	734149.0429	0.00	-1.76
3556	1541521.607	734150.3999	0.00	-1.49
3557	1541520.455	734152.0331	0.00	-1.35
3558	1541519.306	734153.6693	0.00	-1.22
3559	1541518.164	734155.3099	0.00	-1.17
3560	1541517.021	734156.9478	0.00	-1.06
3561	1541515.846	734158.5343	0.00	-1.03
3562	1541514.946	734160.0901	0.00	-0.96
3563	1541513.616	734161.3609	0.00	-0.62
3564	1541512.359	734162.9179	0.00	-0.26
3565	1541510.872	734164.5335	0.00	0.00
3566	1541509.631	734166.3308	0.00	0.00
3567	1541508.459	734167.99	0.00	0.00
3568	1541507.407	734169.6962	0.00	0.00
3569	1541506.48	734171.4607	0.00	0.00
3570	1541505.647	734173.2769	0.00	0.00
3571	1541504.888	734175.1256	0.00	0.00
3572	1541504.127	734176.9718	0.00	0.00
3573	1541503.276	734178.7735	0.00	0.00
3574	1541502.303	734180.5147	0.00	0.00
3575	1541501.256	734182.217	0.00	0.00
3576	1541500.188	734183.9074	0.00	0.00
3577	1541497.92	734184.2543	0.00	0.00
3578	1541495.713	734184.5049	0.00	0.00
3579	1541494.642	734186.1941	0.53	0.00
3580	1541492.449	734186.4103	0.33	0.00
3581	1541490.504	734186.2383	0.00	0.00
3582	1541488.553	734186.0738	0.00	0.00
3583	1541486.646	734185.8402	0.00	-0.11
3584	1541485.566	734187.5196	1.05	0.00
3585	1541483.515	734187.5088	0.87	0.00
3586	1541482.431	734189.1878	2.49	0.00
3587	1541481.345	734190.8658	4.09	0.00
3588	1541479.188	734191.0129	4.09	0.00
3589	1541477.132	734191.0008	3.41	0.00
3590	1541475.052	734191.0256	2.61	0.00
3591	1541473.965	734192.6988	2.28	0.00
3592	1541471.771	734192.9003	1.42	0.00
3593	1541469.591	734193.0778	0.52	0.00
3594	1541468.503	734194.7519	0.00	-0.01
3595	1541467.404	734196.4266	0.00	-0.13
3596	1541465.218	734196.5786	0.00	-0.27
3597	1541462.68	734196.8173	0.10	0.00
3598	1541460.029	734197.0168	0.49	0.00
3599	1541457.795	734197.8436	1.04	0.00
3600	1541455.88	734198.8636	1.65	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7372	1541354.867	734267.6656	0.09	0.00
7373	1541352.885	734266.3967	0.09	0.00
7374	1541351.12	734265.6794	0.07	0.00
7375	1541351.093	734263.6829	0.06	0.00
7376	1541349.356	734263.0546	0.04	0.00
7377	1541347.618	734262.2734	0.02	0.00
7378	1541345.879	734261.3816	0.01	0.00
7379	1541345.856	734259.3852	0.00	0.00
7380	1541345.831	734257.3898	0.01	0.00
7381	1541344.097	734256.8993	0.00	0.00
7382	1541342.362	734256.412	0.01	0.00
7383	1541342.337	734254.4153	0.01	0.00
7384	1541340.603	734254.0449	0.01	0.00
7385	1541338.868	734253.7673	0.00	0.00
7386	1541337.128	734253.0794	0.00	0.00
7387	1541337.104	734251.08	0.00	0.00
7388	1541337.08	734249.0807	0.00	0.00
7389	1541337.056	734247.0815	0.00	0.00
7390	1541337.032	734245.0821	0.00	0.00
7391	1541337.008	734243.0827	0.00	-0.01
7392	1541336.984	734241.0836	0.00	-0.01
7393	1541336.958	734239.086	0.00	-0.01
7394	1541336.934	734237.0854	0.00	-0.02
7395	1541336.906	734235.0894	0.00	-0.02
7396	1541338.592	734233.7944	0.01	0.00
7397	1541336.883	734233.0819	0.00	0.00
7398	1541335.142	734231.7327	0.01	0.00
7399	1541333.393	734230.4775	0.00	0.00
7400	1541375.591	734290.0572	0.00	-0.90
7401	1541373.591	734290.1041	0.00	-0.78
7402	1541371.711	734288.4156	0.00	-0.22
7403	1541370.202	734286.7188	0.13	0.00
7404	1541369.383	734285.0059	0.40	0.00
7405	1541368.639	734283.2911	0.68	0.00
7406	1541367.647	734281.5832	0.74	0.00
7407	1541366.861	734279.8712	0.77	0.00
7408	1541364.865	734279.9187	0.34	0.00
7409	1541363.648	734278.2178	0.21	0.00
7410	1541362.2	734276.523	0.00	0.00
7411	1541361.128	734274.8185	0.00	0.00
7412	1541359.962	734273.1159	0.00	0.00
7413	1541359.169	734271.4011	0.00	0.00
7414	1541357.178	734271.4375	0.00	0.00
7415	1541355.193	734271.4987	0.00	0.00
7416	1541354.398	734269.7475	0.00	0.00
7417	1541352.903	734268.3133	0.10	0.00
7418	1541351.139	734267.6714	0.07	0.00
7419	1541349.402	734267.0454	0.07	0.00
7420	1541349.38	734265.0501	0.05	0.00
7421	1541347.641	734264.2708	0.04	0.00
7422	1541345.903	734263.3777	0.02	0.00
7423	1541344.168	734262.8859	0.01	0.00
7424	1541344.144	734260.8904	0.00	0.00
7425	1541344.121	734258.895	0.00	0.00
7426	1541342.385	734258.4091	0.00	-0.01
7427	1541340.651	734258.0404	0.00	0.00
7428	1541340.627	734256.0428	0.00	0.00
7429	1541338.892	734255.7665	0.00	0.00
7430	1541337.152	734255.0788	0.00	-0.01
7431	1541335.404	734253.7197	0.00	0.00
7432	1541335.38	734251.7207	0.00	0.00
7433	1541335.356	734249.7218	0.00	0.00
7434	1541335.332	734247.7228	0.00	0.00
7435	1541335.308	734245.7238	0.00	-0.01
7436	1541335.284	734243.7249	0.00	-0.01
7437	1541335.26	734241.7259	0.00	-0.01
7438	1541335.235	734239.7273	0.00	-0.01
7439	1541335.212	734237.7283	0.00	-0.01
7440	1541335.187	734235.7297	0.00	0.00
7441	1541335.164	734233.7311	0.00	0.00
7442	1541333.417	734232.4781	0.00	0.00
7443	1541371.59	734290.1511	0.00	-0.68
7444	1541369.713	734288.4625	0.00	-0.37
7445	1541368.203	734286.7658	0.00	0.00
7446	1541367.384	734285.0529	0.13	0.00
7447	1541366.641	734283.3382	0.38	0.00
7448	1541365.649	734281.6304	0.33	0.00
7449	1541363.652	734281.6777	0.00	-0.08
7450	1541362.87	734279.9662	0.00	-0.03
7451	1541361.652	734278.2656	0.00	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3601	1541454.063	734199.4154	1.95	0.00
3602	1541452.22	734200.2002	1.92	0.00
3603	1541450.371	734201.0122	1.89	0.00
3604	1541448.523	734201.8191	1.85	0.00
3605	1541446.689	734202.5236	1.81	0.00
3606	1541444.874	734203.0901	1.76	0.00
3607	1541443.041	734203.7857	1.72	0.00
3608	1541441.227	734204.331	1.67	0.00
3609	1541439.412	734204.8995	1.62	0.00
3610	1541437.528	734205.9266	1.60	0.00
3611	1541435.767	734206.2864	1.50	0.00
3612	1541433.969	734206.5512	1.36	0.00
3613	1541432.108	734207.4438	1.23	0.00
3614	1541430.303	734207.917	1.03	0.00
3615	1541428.525	734208.1884	0.83	0.00
3616	1541426.676	734209.0182	0.67	0.00
3617	1541424.833	734209.8082	0.58	0.00
3618	1541422.985	734210.6276	0.53	0.00
3619	1541421.101	734211.7282	0.50	0.00
3620	1541419.449	734210.9947	0.37	0.00
3621	1541417.581	734211.9615	0.34	0.00
3622	1541415.907	734211.3869	0.22	0.00
3623	1541346.067	734140.7164	0.00	-0.90
3624	1541344.556	734139.5268	0.00	-0.42
3625	1541343.038	734138.5392	0.25	0.00
3626	1541341.295	734137.7313	0.56	0.00
3627	1541340.269	734136.6238	0.09	0.00
3628	1541338.944	734135.9134	0.00	-0.26
3629	1541337.407	734134.4971	0.00	-0.40
3630	1541335.683	734132.9096	0.00	-0.56
3631	1541333.938	734131.6364	0.00	-0.72
3632	1541332.192	734130.4465	0.00	-0.88
3633	1541332.168	734128.4459	0.00	-0.88
3634	1541522.768	734090.994	0.09	0.00
3635	1541523.695	734092.7052	0.05	0.00
3636	1541525.095	734094.4049	0.00	-0.01
3637	1541526.746	734096.0985	0.04	0.00
3638	1541528.195	734097.7968	0.04	0.00
3639	1541529.136	734099.5057	0.00	-0.21
3640	1541529.599	734101.2247	0.00	-0.51
3641	1541529.955	734102.9456	0.00	-0.79
3642	1541530.637	734104.6582	0.00	-1.15
3643	1541529.737	734106.4101	0.00	-1.38
3644	1541528.691	734108.1655	0.00	-1.70
3645	1541529.379	734109.8785	0.00	-2.03
3646	1541530.041	734111.5925	0.00	-2.36
3647	1541528.747	734113.3584	0.00	-2.60
3648	1541527.975	734115.0779	0.00	-2.60
3649	1541527.728	734116.8586	0.00	-2.60
3650	1541527.429	734118.594	0.00	-2.60
3651	1541526.571	734120.3199	0.00	-2.60
3652	1541525.532	734122.0462	0.00	-2.60
3653	1541524.494	734123.7623	0.00	-2.60
3654	1541525.451	734125.5326	0.00	-2.60
3655	1541524.425	734127.2436	0.00	-2.60
3656	1541525.307	734129.1367	0.00	-2.60
3657	1541524.24	734130.8263	0.00	-2.60
3658	1541525.114	734132.6679	0.00	-2.60
3659	1541524.002	734134.3266	0.00	-2.60
3660	1541524.591	734136.531	0.00	-2.60
3661	1541523.464	734138.1814	0.00	-2.60
3662	1541523.966	734140.532	0.00	-2.53
3663	1541524.827	734142.3612	0.00	-2.18
3664	1541523.745	734144.0424	0.00	-2.05
3665	1541522.665	734145.7248	0.00	-1.94
3666	1541521.567	734147.3936	0.00	-1.81
3667	1541522.744	734148.7575	0.00	-1.52
3668	1541523.86	734150.2059	0.00	-1.23
3669	1541522.711	734151.8409	0.00	-1.21
3670	1541521.555	734153.4719	0.00	-1.11
3671	1541520.409	734155.111	0.00	-1.00
3672	1541519.273	734156.7563	0.00	-0.92
3673	1541518.136	734158.4011	0.00	-0.83
3674	1541516.997	734159.9982	0.00	-0.84
3675	1541515.73	734161.6009	0.00	-0.79
3676	1541514.442	734163.1171	0.00	-0.49
3677	1541513.136	734164.6462	0.00	-0.12
3678	1541511.881	734166.1774	0.00	0.00
3679	1541510.669	734167.7632	0.00	0.00
3680	1541509.538	734169.4393	0.00	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7452	1541360.203	734276.5713	0.00	0.00
7453	1541359.132	734274.8668	0.00	0.00
7454	1541357.966	734273.164	0.00	0.00
7455	1541355.964	734273.2145	0.00	0.00
7456	1541353.956	734273.2722	0.00	0.00
7457	1541353.216	734271.6507	0.00	0.00
7458	1541352.685	734270.1343	0.00	0.00
7459	1541351.122	734269.6573	0.09	0.00
7460	1541349.419	734269.04	0.08	0.00
7461	1541347.686	734268.2642	0.07	0.00
7462	1541347.664	734266.2675	0.05	0.00
7463	1541345.926	734265.3737	0.04	0.00
7464	1541344.191	734264.8812	0.02	0.00
7465	1541342.456	734264.3995	0.01	0.00
7466	1541342.433	734262.4029	0.00	0.00
7467	1541342.409	734260.4061	0.00	0.00
7468	1541340.674	734260.0381	0.00	0.00
7469	1541338.94	734259.7651	0.00	0.00
7470	1541338.916	734257.7658	0.00	0.00
7471	1541337.176	734257.0782	0.00	0.00
7472	1541335.428	734255.7187	0.00	0.00
7473	1541333.681	734254.485	0.00	0.00
7474	1541333.657	734252.4844	0.00	0.00
7475	1541333.633	734250.4837	0.00	0.00
7476	1541333.609	734248.4831	0.00	0.00
7477	1541333.585	734246.4825	0.00	0.00
7478	1541333.561	734244.4819	0.00	0.00
7479	1541333.537	734242.4812	0.00	-0.01
7480	1541333.513	734240.4806	0.00	-0.01
7481	1541333.489	734238.48	0.00	-0.01
7482	1541333.465	734236.4794	0.00	-0.01
7483	1541333.441	734234.4788	0.00	0.00
7484	1541369.59	734290.198	0.00	-0.75
7485	1541367.714	734288.5094	0.00	-0.57
7486	1541366.204	734286.8127	0.00	-0.20
7487	1541365.385	734285.1	0.00	-0.02
7488	1541364.644	734283.3854	0.00	0.00
7489	1541362.646	734283.4326	0.00	-0.46
7490	1541361.656	734281.7252	0.00	-0.37
7491	1541360.874	734280.0139	0.00	-0.15
7492	1541359.656	734278.3137	0.00	0.00
7493	1541358.206	734276.6199	0.00	0.00
7494	1541357.136	734274.9158	0.00	0.00
7495	1541355.143	734274.9673	0.00	0.00
7496	1541353.165	734274.9968	0.00	0.00
7497	1541351.689	734273.4319	0.00	0.00
7498	1541351.231	734271.6198	0.00	0.00
7499	1541349.442	734271.0401	0.09	0.00
7500	1541347.707	734270.2628	0.07	0.00
7501	1541345.971	734269.3649	0.02	0.00
7502	1541345.948	734267.3694	0.04	0.00
7503	1541344.214	734266.8763	0.02	0.00
7504	1541342.48	734266.3959	0.00	0.00
7505	1541340.746	734266.0303	0.00	0.00
7506	1541340.722	734264.0331	0.00	0.00
7507	1541340.698	734262.0357	0.00	0.00
7508	1541338.964	734261.7642	0.00	0.00
7509	1541337.224	734261.0768	0.00	0.00
7510	1541337.2	734259.0775	0.00	0.00
7511	1541335.452	734257.7177	0.00	0.00
7512	1541333.705	734256.4856	0.00	0.00
7513	1541367.59	734290.2449	0.00	-1.17
7514	1541365.715	734288.5564	0.00	-0.86
7515	1541364.204	734286.8597	0.00	-0.57
7516	1541363.386	734285.147	0.00	-0.44
7517	1541361.387	734285.1942	0.00	-0.92
7518	1541360.649	734283.4799	0.00	-0.70
7519	1541359.659	734281.7728	0.00	-0.49
7520	1541358.879	734280.0618	0.00	-0.26
7521	1541357.661	734278.3623	0.00	-0.06
7522	1541356.211	734276.6695	0.00	0.00
7523	1541354.205	734276.7183	0.00	0.00
7524	1541352.208	734276.7916	0.00	-0.11
7525	1541351.311	734275.2742	0.00	0.00
7526	1541349.652	734274.8379	0.00	0.00
7527	1541349.549	734272.9847	0.00	0.00
7528	1541347.73	734272.2662	0.01	0.00
7529	1541345.993	734271.3599	0.00	0.00
7530	1541344.259	734270.8666	0.01	0.00
7531	1541344.237	734268.8713	0.00	0.00

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3681	1541508.558	734171.1581	0.00	0.00
3682	1541507.669	734172.9465	0.00	0.00
3683	1541506.883	734174.7842	0.00	0.00
3684	1541506.15	734176.6438	0.00	0.00
3685	1541505.374	734178.4816	0.00	0.00
3686	1541504.472	734180.2581	0.00	0.00
3687	1541503.454	734181.9757	0.00	0.00
3688	1541502.388	734183.6679	0.01	0.00
3689	1541501.318	734185.3572	1.19	0.00
3690	1541499.119	734185.5973	0.91	0.00
3691	1541496.851	734185.9444	0.74	0.00
3692	1541495.78	734187.6327	1.96	0.00
3693	1541493.567	734187.8809	1.76	0.00
3694	1541491.372	734188.0941	1.62	0.00
3695	1541489.425	734187.9207	1.36	0.00
3696	1541487.473	734187.755	1.24	0.00
3697	1541486.391	734189.4347	2.78	0.00
3698	1541484.484	734189.1975	2.63	0.00
3699	1541483.4	734190.8745	4.21	0.00
3700	1541482.315	734192.5508	5.55	0.00
3701	1541480.259	734192.5431	5.01	0.00
3702	1541478.1	734192.6916	4.30	0.00
3703	1541476.044	734192.6765	3.28	0.00
3704	1541474.955	734194.3513	3.09	0.00
3705	1541472.877	734194.3711	1.94	0.00
3706	1541470.682	734194.5738	0.94	0.00
3707	1541469.589	734196.248	0.32	0.00
3708	1541468.501	734197.9217	0.02	0.00
3709	1541466.32	734198.1029	0.00	-0.23
3710	1541464.137	734198.2256	0.00	-0.32
3711	1541461.689	734198.5619	0.03	0.00
3712	1541459.425	734199.0108	0.46	0.00
3713	1541457.488	734199.8363	1.12	0.00
3714	1541455.625	734200.8509	1.60	0.00
3715	1541453.811	734201.3974	2.10	0.00
3716	1541451.967	734202.1792	2.07	0.00
3717	1541450.119	734202.9938	2.03	0.00
3718	1541448.27	734203.8032	2.00	0.00
3719	1541446.436	734204.5052	1.96	0.00
3720	1541444.621	734205.07	1.91	0.00
3721	1541442.788	734205.7663	1.87	0.00
3722	1541440.973	734206.3118	1.82	0.00
3723	1541439.143	734206.8567	1.77	0.00
3724	1541437.376	734208.1412	1.74	0.00
3725	1541435.519	734208.2525	1.61	0.00
3726	1541433.716	734208.5309	1.48	0.00
3727	1541431.855	734209.4251	1.32	0.00
3728	1541430.05	734209.8989	1.12	0.00
3729	1541428.272	734210.1691	0.90	0.00
3730	1541426.424	734210.9976	0.73	0.00
3731	1541424.58	734211.7882	0.69	0.00
3732	1541422.732	734212.6081	0.64	0.00
3733	1541420.85	734213.7058	0.62	0.00
3734	1541419.197	734212.9831	0.49	0.00
3735	1541417.33	734213.946	0.46	0.00
3736	1541415.656	734213.3718	0.33	0.00
3737	1541345.615	734142.6653	0.00	-0.56
3738	1541344.107	734141.4774	0.00	-0.10
3739	1541342.526	734140.5607	0.49	0.00
3740	1541341.24	734139.5021	0.37	0.00
3741	1541339.452	734139.2939	0.00	-0.23
3742	1541339.132	734137.7339	0.00	-0.25
3743	1541337.417	734136.5026	0.00	-0.41
3744	1541335.704	734134.9111	0.00	-0.57
3745	1541333.962	734133.6358	0.00	-0.72
3746	1541332.216	734132.4471	0.00	-0.89
3747	1541524.769	734090.9478	0.13	0.00
3748	1541525.694	734092.6589	0.04	0.00
3749	1541527.095	734094.3586	0.01	0.00
3750	1541528.745	734096.0521	0.05	0.00
3751	1541530.193	734097.7501	0.00	-0.06
3752	1541531.132	734099.4587	0.00	-0.29
3753	1541531.594	734101.1774	0.00	-0.53
3754	1541531.951	734102.8979	0.00	-0.78
3755	1541532.634	734104.6101	0.00	-1.02
3756	1541531.733	734106.3612	0.00	-1.32
3757	1541530.687	734108.1167	0.00	-1.61
3758	1541531.376	734109.8288	0.00	-1.91
3759	1541532.04	734111.5384	0.00	-2.20
3760	1541530.731	734113.3152	0.00	-2.60

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7532	1541342.503	734268.3921	0.00	0.00
7533	1541340.769	734268.0273	0.00	0.00
7534	1541339.035	734267.7608	0.00	0.00
7535	1541339.011	734265.7622	0.00	-0.01
7536	1541338.987	734263.7633	0.00	0.00
7537	1541337.248	734263.076	0.00	-0.01
7538	1541335.5	734261.7156	0.00	0.00
7539	1541335.476	734259.7167	0.00	0.00
7540	1541333.729	734258.4862	0.00	0.00
7541	1541365.59	734290.2918	0.00	-1.60
7542	1541363.716	734288.6033	0.00	-1.18
7543	1541362.205	734286.9067	0.00	-0.95
7544	1541360.207	734286.9537	0.00	-1.31
7545	1541359.388	734285.2413	0.00	-1.05
7546	1541358.652	734283.5273	0.00	-0.82
7547	1541357.663	734281.8205	0.00	-0.61
7548	1541356.884	734280.1099	0.00	-0.38
7549	1541355.665	734278.4102	0.00	-0.18
7550	1541353.677	734278.4638	0.00	-0.29
7551	1541351.688	734278.4912	0.00	-0.41
7552	1541349.953	734276.9262	0.00	-0.25
7553	1541347.978	734276.2454	0.00	-0.25
7554	1541347.789	734274.2525	0.00	0.00
7555	1541346.015	734273.3537	0.01	0.00
7556	1541344.282	734272.8644	0.00	0.00
7557	1541342.549	734272.383	0.00	-0.01
7558	1541342.526	734270.3878	0.00	0.00
7559	1541340.792	734270.0239	0.00	0.00
7560	1541339.059	734269.7592	0.00	0.00
7561	1541337.32	734269.0728	0.00	0.00
7562	1541337.296	734267.0741	0.00	0.00
7563	1541337.272	734265.0751	0.00	0.00
7564	1541335.524	734263.7144	0.00	0.00
7565	1541333.777	734262.4875	0.00	0.00
7566	1541333.753	734260.4868	0.00	-0.01
7567	1541363.589	734290.3387	0.00	-1.80
7568	1541361.718	734288.6502	0.00	-1.51
7569	1541359.719	734288.6971	0.00	-1.90
7570	1541358.208	734287.0007	0.00	-1.39
7571	1541357.39	734285.2886	0.00	-1.16
7572	1541356.655	734283.5749	0.00	-0.94
7573	1541355.668	734281.8688	0.00	-0.72
7574	1541354.891	734280.1598	0.00	-0.49
7575	1541352.895	734280.2062	0.00	-0.61
7576	1541350.919	734280.2882	0.00	-0.73
7577	1541349.886	734278.7613	0.00	-0.55
7578	1541347.973	734278.3926	0.00	-0.53
7579	1541346.327	734277.1159	0.00	-0.32
7580	1541346.065	734275.3177	0.00	-0.13
7581	1541344.298	734274.884	0.00	-0.01
7582	1541342.57	734274.3782	0.00	-0.01
7583	1541340.838	734274.0158	0.00	-0.01
7584	1541340.815	734272.02	0.00	0.00
7585	1541339.082	734271.7572	0.00	0.00
7586	1541337.343	734271.0713	0.00	-0.01
7587	1541335.596	734269.7105	0.00	0.00
7588	1541335.572	734267.7119	0.00	0.00
7589	1541335.548	734265.7132	0.00	-0.03
7590	1541333.801	734264.4881	0.00	-0.03
7591	1541361.589	734290.3857	0.00	-2.04
7592	1541359.589	734290.4326	0.00	-2.40
7593	1541357.721	734288.7441	0.00	-1.97
7594	1541356.209	734287.0478	0.00	-1.50
7595	1541355.392	734285.3359	0.00	-1.28
7596	1541354.659	734283.6226	0.00	-1.05
7597	1541353.672	734281.9167	0.00	-0.84
7598	1541351.68	734281.9708	0.00	-0.95
7599	1541349.683	734282.0138	0.00	-0.97
7600	1541348.883	734280.3112	0.00	-0.76
7601	1541346.96	734280.3625	0.00	-0.65
7602	1541345.912	734278.7834	0.00	-0.45
7603	1541344.452	734277.0066	0.00	-0.19
7604	1541342.615	734276.3719	0.00	-0.02
7605	1541340.863	734276.0111	0.00	-0.01
7606	1541339.129	734275.7513	0.00	-0.01
7607	1541339.105	734273.7546	0.00	-0.01
7608	1541337.367	734273.0694	0.01	0.00
7609	1541335.62	734271.7088	0.01	0.00
7610	1541333.873	734270.4899	0.01	0.00
7611	1541333.849	734268.4893	0.00	0.00

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3761	1541530.009	734115.104	0.00	-2.60
3762	1541529.506	734116.6669	0.00	-2.60
3763	1541529.55	734118.5341	0.00	-2.60
3764	1541528.544	734120.3666	0.00	-2.60
3765	1541527.506	734122.1056	0.00	-2.60
3766	1541526.474	734123.8192	0.00	-2.60
3767	1541527.352	734125.7198	0.00	-2.60
3768	1541526.34	734127.4333	0.00	-2.60
3769	1541527.261	734129.2969	0.00	-2.60
3770	1541526.195	734130.9896	0.00	-2.60
3771	1541526.833	734133.2181	0.00	-2.60
3772	1541525.721	734134.8821	0.00	-2.60
3773	1541526.216	734137.225	0.00	-2.60
3774	1541525.082	734138.8724	0.00	-2.60
3775	1541525.931	734140.6942	0.00	-2.36
3776	1541527.094	734142.0536	0.00	-2.06
3777	1541525.999	734143.7256	0.00	-1.88
3778	1541524.925	734145.4112	0.00	-1.74
3779	1541523.848	734147.0938	0.00	-1.64
3780	1541524.976	734148.5498	0.00	-1.33
3781	1541526.139	734149.9508	0.00	-1.02
3782	1541525.01	734151.5984	0.00	-0.94
3783	1541523.85	734153.2266	0.00	-0.93
3784	1541522.691	734154.8572	0.00	-0.87
3785	1541521.547	734156.5053	0.00	-0.77
3786	1541520.395	734158.1687	0.00	-0.68
3787	1541519.249	734160.024	0.00	-0.61
3788	1541517.824	734161.709	0.00	-0.61
3789	1541516.559	734163.2978	0.00	-0.58
3790	1541515.268	734164.8275	0.00	-0.36
3791	1541513.983	734166.3525	0.00	0.00
3792	1541512.75	734167.8998	0.00	0.00
3793	1541511.485	734169.2382	0.00	0.00
3794	1541510.709	734170.851	0.00	0.00
3795	1541509.738	734172.574	0.00	0.00
3796	1541508.902	734174.3841	0.00	0.00
3797	1541508.162	734176.2398	0.00	0.00
3798	1541507.443	734178.1034	0.00	0.00
3799	1541506.637	734179.9248	0.00	0.00
3800	1541505.682	734181.6731	0.00	0.00
3801	1541504.629	734183.3722	0.28	0.00
3802	1541503.554	734185.0599	1.44	0.00
3803	1541502.485	734186.7507	2.61	0.00
3804	1541500.251	734187.0482	2.37	0.00
3805	1541498.051	734187.2869	2.12	0.00
3806	1541496.98	734188.974	3.33	0.00
3807	1541494.704	734189.3181	3.19	0.00
3808	1541492.487	734189.565	3.03	0.00
3809	1541490.292	734189.7756	3.01	0.00
3810	1541488.343	734189.6013	2.83	0.00
3811	1541487.26	734191.2807	4.31	0.00
3812	1541485.307	734191.1132	4.33	0.00
3813	1541484.222	734192.791	5.62	0.00
3814	1541483.136	734194.4681	6.29	0.00
3815	1541481.229	734194.2262	6.09	0.00
3816	1541479.171	734194.2196	5.28	0.00
3817	1541477.01	734194.3694	4.27	0.00
3818	1541475.918	734196.0463	4.05	0.00
3819	1541473.865	734196.0253	2.82	0.00
3820	1541471.787	734196.043	1.58	0.00
3821	1541470.698	734197.7147	1.08	0.00
3822	1541469.61	734199.3876	0.50	0.00
3823	1541467.417	734199.5989	0.04	0.00
3824	1541465.244	734199.781	0.00	-0.32
3825	1541463.107	734199.9051	0.00	-0.38
3826	1541460.877	734200.3101	0.00	-0.01
3827	1541458.926	734200.97	0.56	0.00
3828	1541457.243	734201.8598	0.93	0.00
3829	1541455.381	734202.8408	1.46	0.00
3830	1541453.556	734203.3753	2.23	0.00
3831	1541451.716	734204.1595	2.22	0.00
3832	1541449.866	734204.9743	2.18	0.00
3833	1541448.015	734205.7868	2.15	0.00
3834	1541446.183	734206.4869	2.11	0.00
3835	1541444.368	734207.0495	2.06	0.00
3836	1541442.541	734207.744	2.02	0.00
3837	1541440.746	734208.2881	1.97	0.00
3838	1541439.134	734208.6944	1.90	0.00
3839	1541438.683	734210.4172	2.02	0.00
3840	1541436.972	734210.2684	1.90	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7612	1541333.825	734266.4887	0.00	-0.05
7613	1541357.589	734290.4795	0.00	-2.55
7614	1541355.723	734288.791	0.00	-2.04
7615	1541354.211	734287.095	0.00	-1.62
7616	1541353.395	734285.3836	0.00	-1.40
7617	1541352.664	734283.6715	0.00	-1.17
7618	1541350.668	734283.7191	0.00	-1.19
7619	1541348.675	734283.768	0.00	-1.07
7620	1541347.683	734282.0732	0.00	-0.85
7621	1541345.707	734282.0941	0.00	-0.72
7622	1541344.934	734280.4442	0.00	-0.54
7623	1541344.19	734278.942	0.00	-0.35
7624	1541342.591	734278.3479	0.00	-0.19
7625	1541340.879	734278.0068	0.00	-0.03
7626	1541339.151	734277.7465	0.00	-0.23
7627	1541337.414	734277.0643	0.00	-0.46
7628	1541337.391	734275.0672	0.00	-0.12
7629	1541335.644	734273.7069	0.00	-0.18
7630	1541333.897	734272.4906	0.00	-0.26
7631	1541355.589	734290.5264	0.00	-2.62
7632	1541353.725	734288.838	0.00	-2.03
7633	1541352.214	734287.1422	0.00	-1.60
7634	1541351.398	734285.431	0.00	-1.39
7635	1541349.401	734285.4792	0.00	-1.27
7636	1541347.407	734285.5277	0.00	-1.11
7637	1541346.679	734283.8209	0.00	-0.93
7638	1541344.692	734283.8176	0.00	-0.76
7639	1541343.563	734282.0181	0.00	-0.54
7640	1541342.765	734280.3167	0.00	-0.36
7641	1541340.901	734280.0366	0.00	-0.18
7642	1541339.173	734279.7419	0.00	-0.01
7643	1541337.437	734279.062	0.00	-0.40
7644	1541335.691	734277.7019	0.00	-0.88
7645	1541335.667	734275.7047	0.00	-0.55
7646	1541333.921	734274.4912	0.00	-0.67
7647	1541353.588	734290.5733	0.00	-2.47
7648	1541351.727	734288.885	0.00	-1.85
7649	1541350.217	734287.1895	0.00	-1.47
7650	1541348.22	734287.2371	0.00	-1.30
7651	1541346.225	734287.2839	0.00	-1.11
7652	1541345.41	734285.5725	0.00	-0.94
7653	1541343.426	734285.6117	0.00	-0.75
7654	1541342.681	734283.8144	0.00	-0.58
7655	1541341.218	734282.0965	0.00	-0.34
7656	1541339.231	734281.7328	0.00	-0.13
7657	1541337.463	734281.0642	0.00	-0.15
7658	1541335.716	734279.6984	0.00	-0.62
7659	1541333.969	734278.4924	0.00	-1.08
7660	1541333.945	734276.4918	0.00	-1.08
7661	1541351.588	734290.6202	0.00	-2.25
7662	1541349.73	734288.9321	0.00	-1.63
7663	1541347.733	734288.9791	0.00	-1.40
7664	1541345.737	734289.0263	0.00	-1.16
7665	1541344.232	734287.3323	0.00	-0.92
7666	1541342.243	734287.3852	0.00	-0.73
7667	1541341.445	734285.6922	0.00	-0.57
7668	1541340.836	734284.0895	0.00	-0.42
7669	1541339.208	734283.6927	0.00	-0.24
7670	1541337.482	734283.0813	0.00	-0.04
7671	1541335.739	734281.6903	0.00	-0.43
7672	1541333.993	734280.493	0.00	-0.84
7673	1541349.588	734290.6672	0.00	-2.02
7674	1541347.588	734290.7141	0.00	-1.77
7675	1541345.588	734290.761	0.00	-1.53
7676	1541343.744	734289.0742	0.00	-0.96
7677	1541341.749	734289.1233	0.00	-0.76
7678	1541340.271	734287.385	0.00	-0.53
7679	1541339.463	734285.6015	0.00	-0.37
7680	1541337.444	734285.2821	0.00	-0.15
7681	1541335.785	734283.6709	0.00	-0.22
7682	1541334.017	734282.4937	0.00	-0.68
7683	1541343.587	734290.8079	0.00	-1.28
7684	1541341.587	734290.8548	0.00	-1.03
7685	1541339.76	734289.1096	0.00	-0.56
7686	1541338.24	734287.2568	0.00	-0.32
7687	1541336.09	734287.3926	0.00	-0.11
7688	1541335.584	734285.4895	0.00	-0.06
7689	1541334.042	734284.4943	0.00	-0.51
7690	1541339.587	734290.9018	0.00	-0.78
7691	1541337.767	734289.1345	0.00	-0.36

Appendix C

121 Badger Cut/Fill Calculations
Brockway Engineering, PLLC
2/23/2023

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
3841	1541435.239	734210.2282	1.77	0.00
3842	1541433.458	734210.5135	1.57	0.00
3843	1541431.599	734211.4065	1.42	0.00
3844	1541429.795	734211.8803	1.22	0.00
3845	1541428.018	734212.149	0.98	0.00
3846	1541426.17	734212.9761	0.79	0.00
3847	1541424.326	734213.7667	0.80	0.00
3848	1541422.477	734214.5864	0.76	0.00
3849	1541420.582	734215.6629	0.73	0.00
3850	1541418.934	734214.995	0.61	0.00
3851	1541417.102	734215.9335	0.57	0.00

TIN Node	X-Coordinate	Y-Coordinate	Fill	Cut
7692	1541335.849	734289.4325	0.00	-0.17
7693	1541334.09	734288.4955	0.00	-0.10
7694	1541334.066	734286.4949	0.00	-0.30
7695	1541337.587	734290.9487	0.00	-0.53
7696	1541335.586	734290.9956	0.00	-0.29
7697	1541334.114	734290.4961	0.00	-0.04
		Sum (ft3)	6082.00	-7314.01
		Sum (cy)	225.26	-270.89
		Difference	-45.63 cy	

Appendix D

Fire Access Road Easement

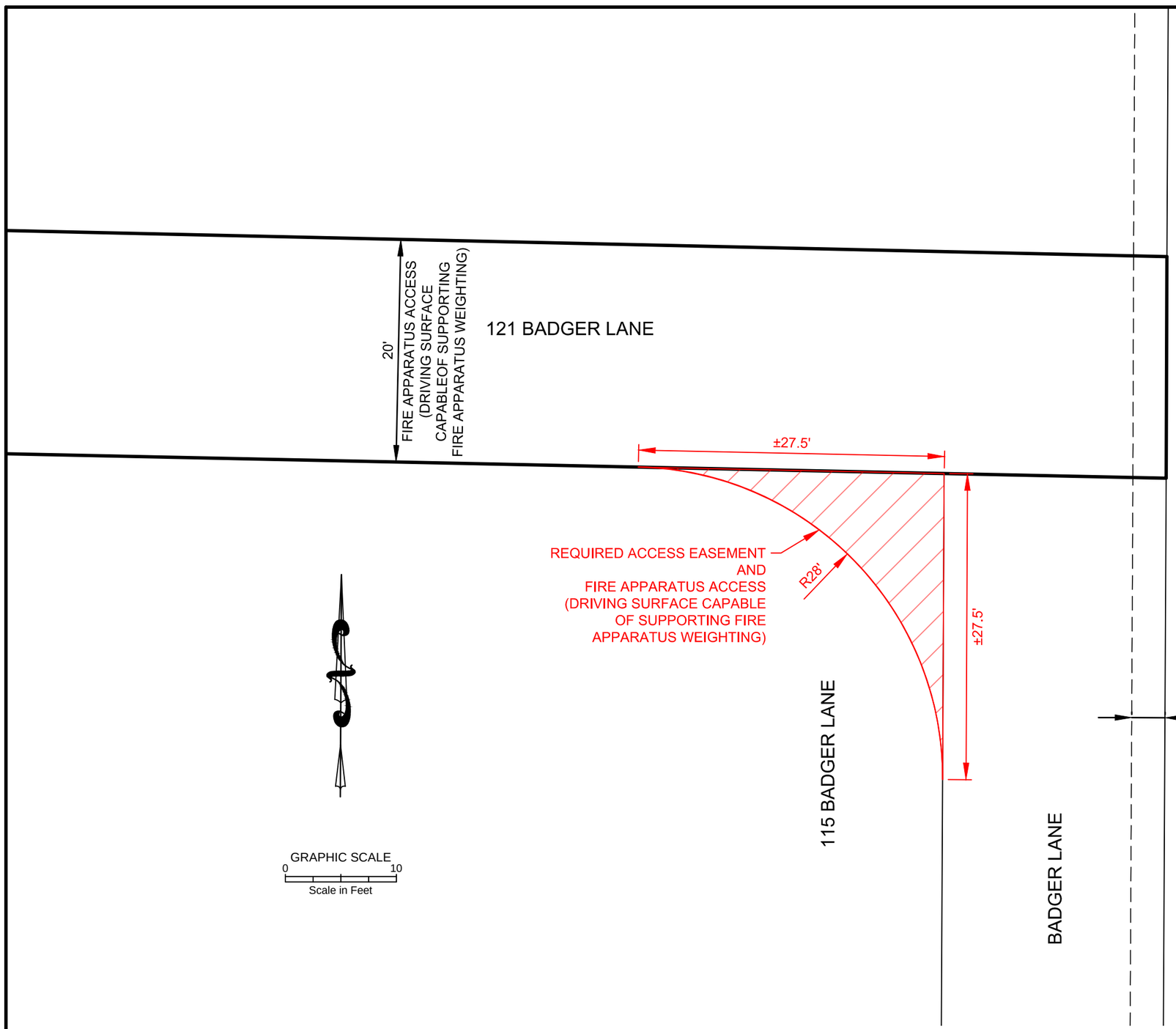
Appendix D

NOTE

Boundary information and topographic information is per a survey conducted by Galena Engineering dated 9/5/19.

LEGEND

- Property Line
- Adjoiner's Lot Line
- Easement, Type and Width Shown
- Required Access Easement



GRAPHIC SCALE
0 10
Scale in Feet

KETCHUM FIRE DEPARTMENT

Approved as Submitted

12/01/2021 3:31:56 PM

Seth Martin - Assistant Chief / Fire Marshal

An approved access roadway per 2018 International Fire Code Appendix D shall be installed prior to any combustible construction on the site. The road shall be a minimum of twenty (20) feet in width and capable of supporting an imposed load of at least 75,000 pounds. The road must be an all-weather driving surface maintained free, clear, and unobstructed at all times. Grades shall not exceed 7%. Dead end access roadways exceeding 150 feet in length shall be provided with an approved turnaround. Gates, if installed, are required to be siren activated for emergency vehicle access. Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

GALENA ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
email: galena@galena-engineering.com

DESIGNED : SKS
CHECKED: SMF
DETAILED SKS

SCALES SHOWN ARE FOR 11" x 17" PRINTS ONLY

PRELIMINARY DRIVEWAY DESIGN
121 BADGER LANE

WITHIN SEC 13, T4N, R17E, CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR PRESIDIO VISTA PROPERTIES

PROJECT INFORMATION
P:\sdskproj\6144-03\dwg\Construction\6144-03_ENG BASE.dwg 11/23/21 11:36:09 AM

EX-TO

Appendix D.1

Fire Access Road Recorded Easement Agreement

Appendix D.1

Instrument # 690693
HAILEY, BLAINE, IDAHO
01-14-2022 11:50:15 AM No. of Pages: 8
Recorded for: PIONEER TITLE CANYON - CALDWELL
STEPHEN MCDOUGALL GRAHAM Fee: $31.00
Ex-Officio Recorder Deputy: GWB
Electronically Recorded by Simplifile

ACCOMMODATION

EASEMENT AGREEMENT

ACCOMMODATION

This Easement Agreement (this "**Agreement**") is made and delivered by and between J. Colby Williams and Rory C. Higgins as trustees of the J. Colby Williams and Rory C. Higgins 2005 Revocable Trust, a Nevada trust whose address is 205 Stonewood Court, Las Vegas, Nevada 89107 ("**Grantor**"), and 121 Badger Lane, LLC, a Nevada limited liability company whose address is 930 Tahoe Blvd., Suite 802-80, Incline Village, Nevada 89451 ("**Grantee**") Grantor and Grantee are each a "**Party**" and together are the "**Parties**".

BACKGROUND

A. Grantor owns Parcel 5, Rocking Ranch No. 2, according to the official plat thereof recorded as Instrument No. 340539 (the "**RR2 Plat**"), Blaine County, Idaho; also known as 115 Badger Lane, Ketchum, Idaho 83340 ("**115 Badger**").

B. Grantee owns Parcel 4, Rocking Ranch No. 2, according to the RR2 Plat; also known as 121 Badger Lane, Ketchum, Idaho 83340 ("**121 Badger**").

C. 121 Badger is a generally square parcel with a 20-foot-wide extension along the northern boundary of 115 Badger, providing access from 121 Badger to Badger Lane. Attached hereto as **EXHIBIT A** is an excerpt from the RR2 Plat depicting both 115 Badger (Parcel 5) and 121 Badger (Parcel 4). When Grantee was under contract to purchase 121 Badger, Grantee learned that the City of Ketchum and the Ketchum Fire Department ("**City and Fire**") believe that the turning radius from northbound Badger Lane onto the extension of 121 Badger at the northeast corner of 115 Badger (the "**Turn**") would be unsatisfactory.

D. Grantor agreed that if Grantee purchased 121 Badger, Grantor would sell Grantee an access easement through the northeast corner of 115 Badger in order to lengthen the inside radius of the Turn to satisfy City and Fire's concerns.

E. This Agreement embodies the final terms and conditions of Grantee's access easement and, except as expressly stated herein, supersedes and replaces entirely all prior agreements, written or otherwise, recorded or unrecorded, relating to the subject matter hereof.

AGREEMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby confessed and acknowledged, and incorporating the background recitals above, the Parties make the following grants, agreements, and covenants:

1. Grant. Subject to the terms and conditions set forth herein, Grantor hereby sells, conveys, and grants to Grantee a non-exclusive perpetual easement (the "**Easement**") for ingress, egress, and the installation, maintenance, and use of underground utilities, over and across that portion of 115 Badger

Appendix D.1

ACCOMMODATION

ACCOMMODATION

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1. Grant. Subject to the terms and conditions set forth herein, Grantor hereby sells, conveys, and grants to Grantee a non-exclusive perpetual easement (the "**Easement**") for ingress, egress, and the installation, maintenance, and use of underground utilities, over and across that portion of 115 Badger

depicted as the "Access Easement" on **EXHIBIT B**, attached to and made a part hereof and legally described in **EXHIBIT C,** attached hereto and made a part hereof (the "**Easement Area**").

2. Purpose. The Easement shall provide Grantee with widened access along the Turn and for the installation and maintenance of underground utilities. Grantee may prepare and improve the surface in any manner and with any material reasonably acceptable to the Parties (Grantor's approval not to be unreasonably withheld, except that Grantor cannot withhold approval of improvements required by City and Fire), including drainage improvements, paving, and road base, as may be required to satisfy City and Fire's access concerns and Grantee's driveway improvements.

3. Title. Grantor warrants Grantee's title to the Easement and Easement Area is free and clear of all liens and encumbrances. If Grantor's property is currently encumbered by one or more liens, Grantor agrees to obtain from the holder(s) thereof and record a release of lien or subordination of lien to the Easement and Easement Area within 180 days after the date hereof.

4. Improvement and Maintenance. Grantee is responsible to make all improvements and to keep the Easement Area in good condition at Grantee's sole expense, except to the extent of any damage caused by or through Grantor. Grantee shall obtain and maintain insurance for work performed in the Easement Area, and shall name Grantor as an additional insured in said insurance policy.

5. Landscaping Improvements to 115 Badger. In connection with Grantee's improvements in the Easement Area, Grantee has agreed to assist Grantor in improving Grantor's lands adjacent to the Easement Area. Grantee will assist Grantor in producing a final landscape design satisfactory to Grantor, in Grantor's sole discretion, and implementing those improvements to 115 Badger in substantial conformance with any agreed plans. Grantee will pay for design services and for the improvements (whether by Grantee's or Grantor's designers and contractors) up to a maximum total cost of $100,000, after which Grantor will pay for any additional cost. Upon completion of these improvements to 115 Badger (up to $100,000) to Grantor's satisfaction, and proof that all amounts charged by contractors up to $100,000 have been paid, Grantor will provide an original signed and notarized document affirming Grantee's satisfaction of Grantee's obligations under this Section 5, which affirmation shall be irrevocable. Grantee is not responsible for the continued maintenance of the landscaping improvements to 115 Badger, which shall become the sole responsibility of Grantor.

6. Grantee's Use. Grantee and Grantee's permitees shall be permitted to use the Easement and/or Easement Area to construct and maintain access and underground utilities to and from 121 Badger, or any other adjacent property hereafter acquired by Grantee. The phrase "access" as used in this Agreement shall be broadly interpreted to encompass vehicular (including emergency vehicles), pedestrian, equestrian and other forms of travel for which roads in Ketchum, Blaine County, Idaho, are customarily used. Grantee shall indemnify and hold harmless Grantor for any claims, losses or expenses attributable to physical damage or personal injury caused by Grantee's and/or its permitees' use of the Easement Area.

7. Easement Appurtenant; Binding Effect. The Easement shall be an easement appurtenant to 121 Badger. This Agreement shall be binding upon and shall inure to the benefit of the heirs, assigns, successors, and personal representatives of the Parties.

8. Recording. This Agreement shall be recorded in the real estate records of Blaine County, Idaho.

9. Counterparts. This document may be executed in any number of counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, Grantor and Grantee have executed this Agreement as of the day and year first above written.

J. Colby Williams and Rory C. Higgins 2005 Revocable Trust

J. ~~Coly~~ Williams, Trustee

Rory C. Higgins, Trustee

121 Badger Lane, LLC

By David Duffield, President of Presidio Vista Properties, Inc., Manager

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

The foregoing instrument was acknowledged before me this 3rd day of January 2022 by J. Colby Williams and Rory C. Higgins as trustees of the J. Colby Williams and Rory C. Higgins 2005 Revocable Trust.

Witness my hand and official seal
My commission expires: 4/26/2023

Notary Public

JOHN CHONG
Notary Public, State of Nevada
Appointment No. 15-1821-1
My Appt. Expires Apr 26, 2023

STATE OF IDAHO)
) ss.
COUNTY OF BLAINE)

The foregoing instrument was acknowledged before me this 13 day of JANUARY 2022 by David Duffield as President of Presidio Vista Properties, Inc., Manager of 121 Badger Lane, LLC.

Witness my hand and official seal
My commission expires: 04-17-2025

Notary Public

Rocio Colan
Commission Number: 61468
Notary Public
State of Idaho
My Commission Expires: 04/17/2025

EXHIBIT A

Excerpt from RR2 Plat

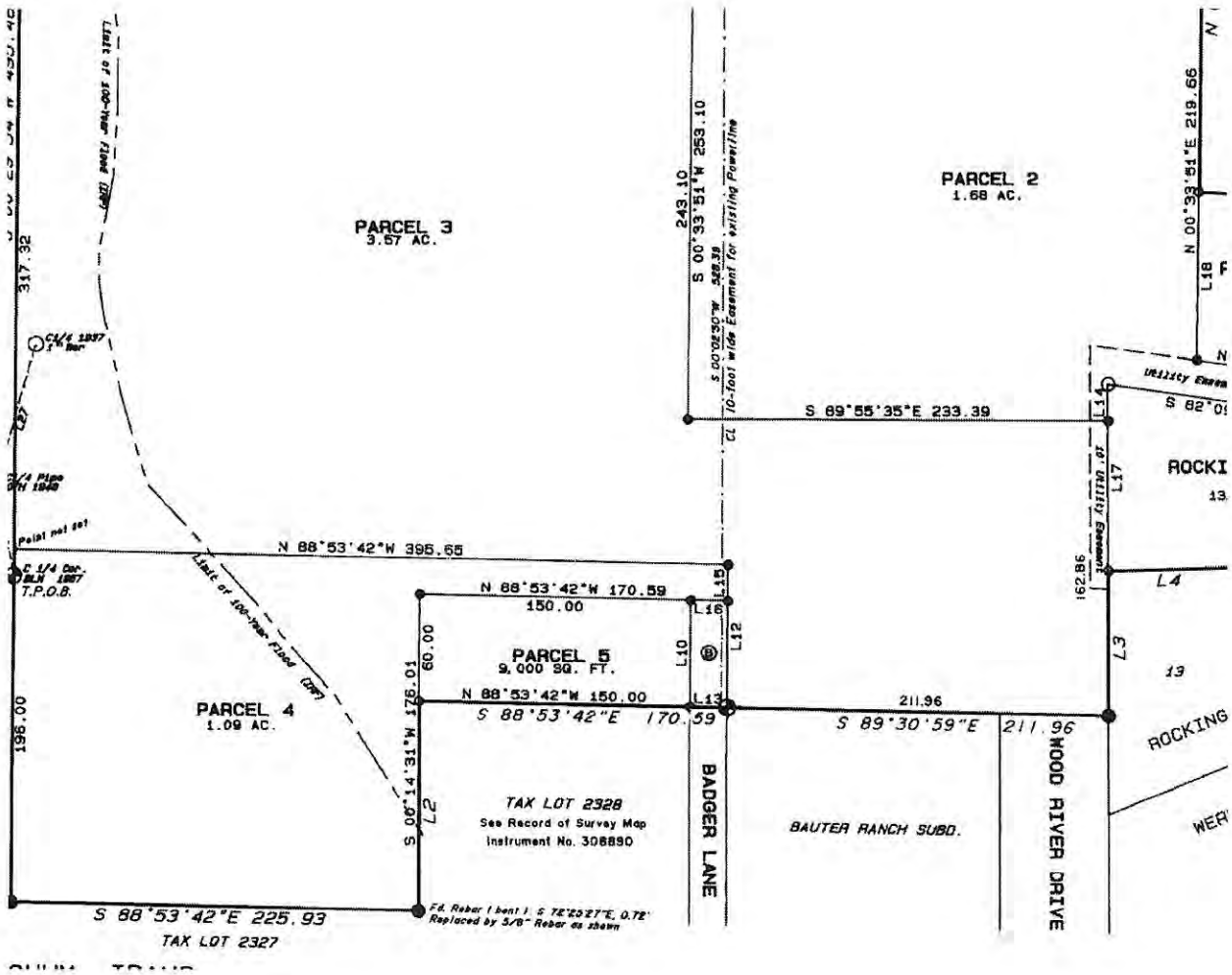
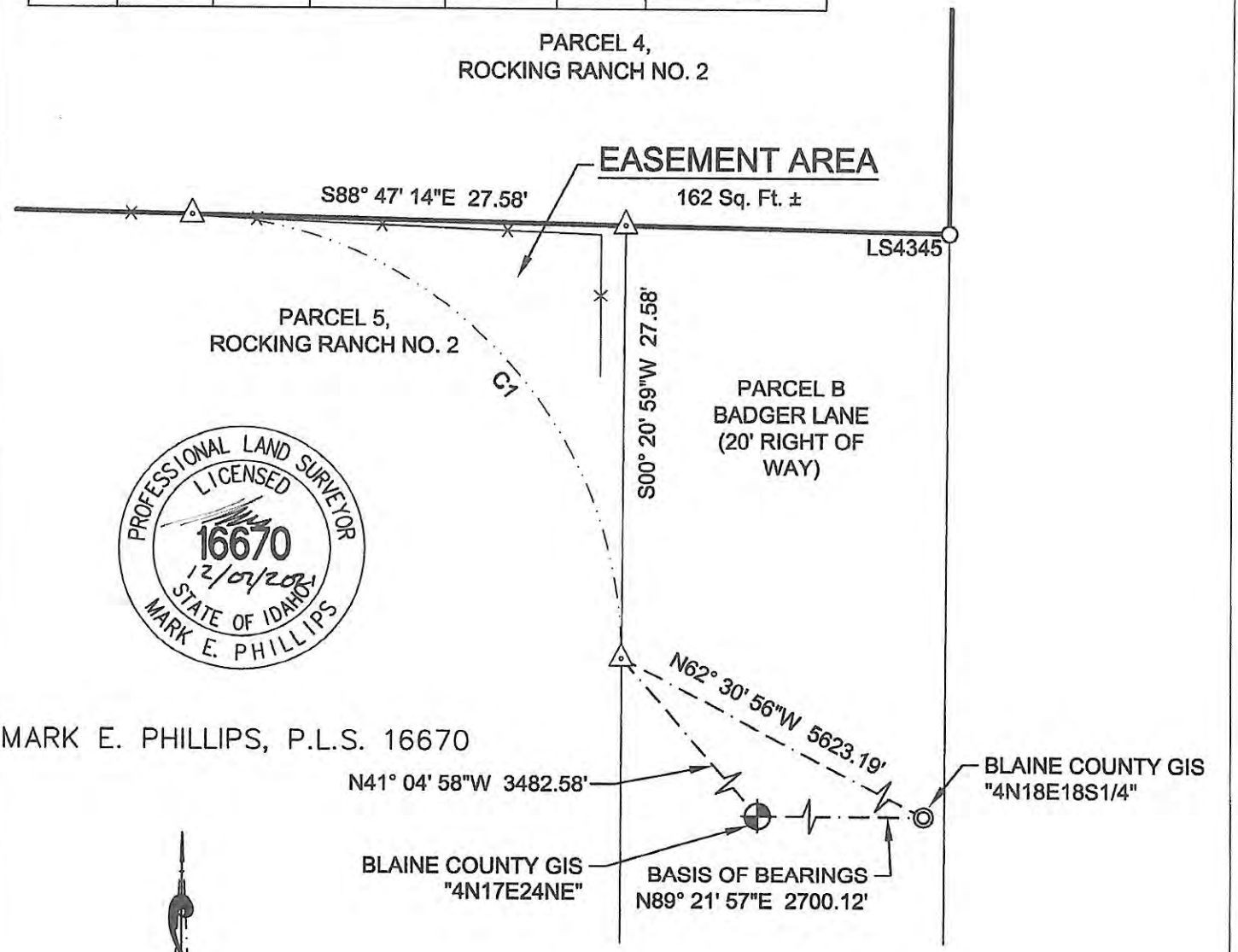


EXHIBIT B

Easement Area Depiction

Curve Table						
Curve	Length	Radius	Delta	Tangent	Chord	Chord Direction
C1	43.56'	28.00'	89° 08' 13"	27.58'	39.30'	N44° 13' 07"W



PROFESSIONAL LAND SURVEYOR
LICENSED
16670
12/07/2021
STATE OF IDAHO
MARK E. PHILLIPS

MARK E. PHILLIPS, P.L.S. 16670

GRAPHIC SCALE
0 10 20
Scale in Feet

LEGEND

- Property Line
- Adjoiner's Lot Line
- Centerline of Right of Way
- Easement
- GIS Tie Line
- Found Brass Cap on 2.5" Galvanized Pipe
- Found 2.5" Iron Pipe
- Calculated Point, Nothing Set

Galena Engineering Inc.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
(208) 788-4612 fax
email galena@galena-engineering.com

AN EXHIBIT SHOWING AN
ACCESS EASEMENT
WITHIN SECTION 13, T.4 N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR PRESIDIO VISTA PROPERTIES

PROJECT INFORMATION
P:\sdskproj\6144-03\dwg\Boundary-Plat\6144-03_Legal Description.dwg 12/07/21 4:20:57 PM

SHT 1 OF 1

GALENA ENGINEERING, INC.

CIVIL ENGINEERING & LAND SURVEYING

Legal Description for an Access Easement to Benefit Parcel 4, Rocking Ranch No. 2

Section 13, Township 4 North, Range 17 East
Boise Meridian, City of Ketchum, Blaine County, Idaho

A legal description for a parcel of land situated within Parcel 5, Rocking Ranch No. 2, Section 13, Township 4 North, Range 17 East, Boise Meridian, City of Ketchum, Blaine County, Idaho; more particularly described as follows:

Commencing at a Brass Cap on 2.5" Galvanized Pipe, marking the northeast corner of Section 24, also known as Blaine County GIS control point "4N17E24NE", from which a 2.5" Iron Pipe, marking the south quarter corner of Section 18, also known as Blaine County GIS control point "4N18E18S1/4", lies N89°21'57"E, 2700.12 feet distant; thence proceeding N41°04'58"W, 3482.58 feet, to a point along the easterly boundary of Parcel 5, Rocking Ranch No. 2, and said point being the TRUE POINT OF BEGINNING;

Thence 43.56 feet along a curve to the left, with a radius of 28.00 feet, a delta of 89°08'13", a tangent length of 27.58 feet and a chord length of 39.30 feet, that bears N44°13'07"W, to a point along the northerly boundary of Parcel 5, Rocking Ranch No. 2;

Thence along the northerly boundary of Parcel 5, Rocking Ranch No. 2, S88°47'14"E, 27.58 feet, to a point marking the northeast corner of Parcel 5, Rocking Ranch No. 2;

Thence along the easterly boundary of Parcel 5, Rocking Ranch No. 2, S00°20'59"W, 27.58 feet, to the TRUE POINT OF BEGINNING, containing 162 Sq. Ft., more or less, as determined by computer methods.

317 N. RIVER STREET ▪ HAILEY, IDAHO ▪ TELEPHONE (208) 788-1705 ▪ FAX (208) 788-4612

Appendix E

Fire Apparatus Turnaround Diagram

Appendix E

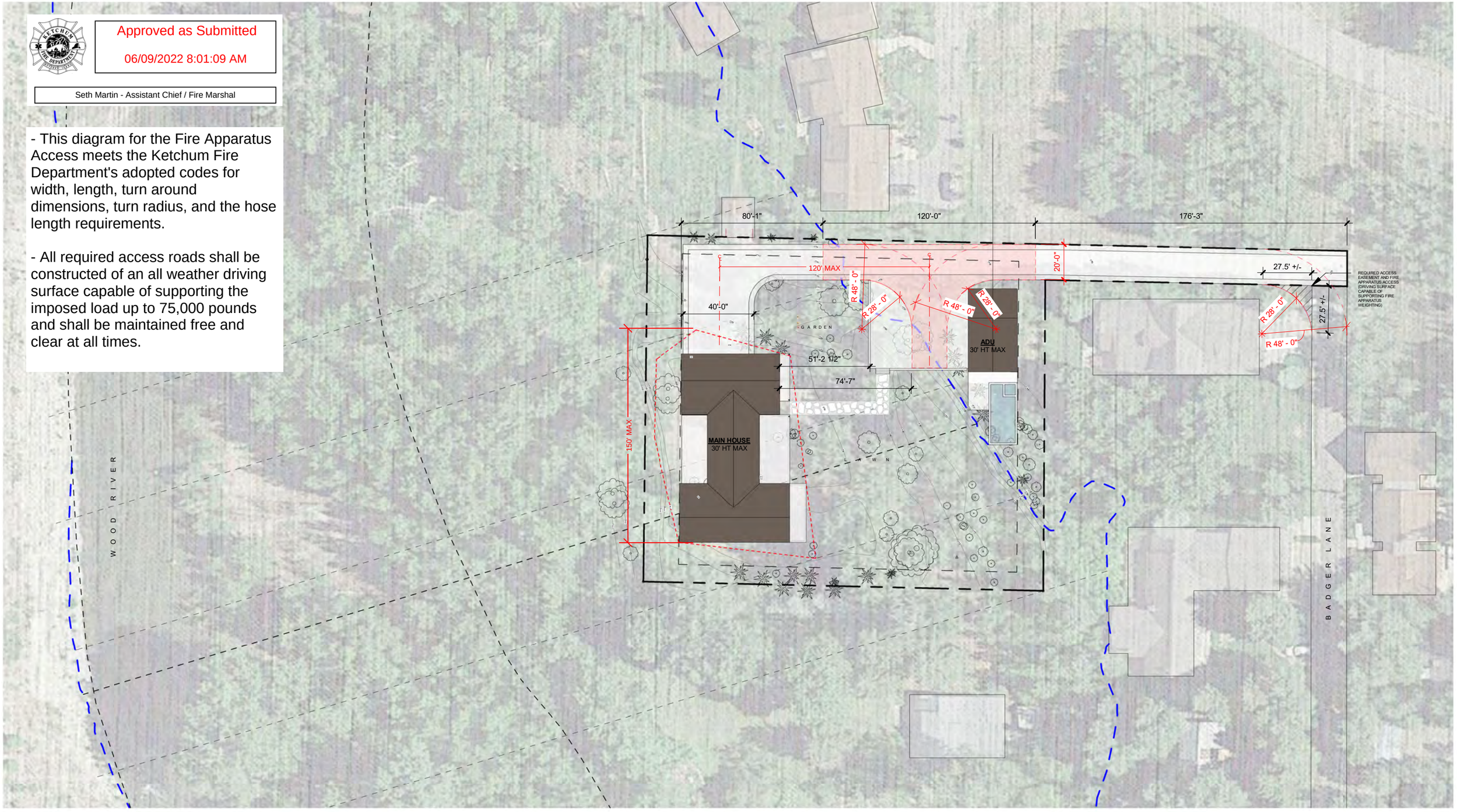
Approved as Submitted

06/09/2022 8:01:09 AM

Seth Martin - Assistant Chief / Fire Marshal

- This diagram for the Fire Apparatus Access meets the Ketchum Fire Department's adopted codes for width, length, turn around dimensions, turn radius, and the hose length requirements.

- All required access roads shall be constructed of an all weather driving surface capable of supporting the imposed load up to 75,000 pounds and shall be maintained free and clear at all times.



RO | ROCKETT DESIGN		1	1" = 50'-0"	**SITE PLAN**	A-1.0
121 BADGER LANE / #2201				06/06/22	

Appendix F

FEMA Elevation Certificate

FEMA

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

2019 EDITION

OMB No. 1660-0008
Expiration Date: November 30, 2022

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE AND INSTRUCTIONS

Paperwork Reduction Act Notice

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or the applicant may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

Purpose of the Elevation Certificate

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate Post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. The Elevation Certificate is not required for Pre-FIRM buildings unless the building is being rated under the optional Post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate, available on FEMA's website at https://www.fema.gov/media-library/assets/documents/3539?id=1727.

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name
121 BADGER LANE LLC

Policy Number:

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
121 BADGER LANE

Company NAIC Number:

City	State	ZIP Code
KETCHUM	Idaho	83340

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
PARCEL 4, ROCKING RANCH SUB #2 (LOCATED WITHIN SECTION 13, T.4 N., R.17 E., B.M., CITY OF KETCHUM, BLAINE COUNT

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. 43.68022º N Long. 114.37573º W Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 1A

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) 0.00 sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade

c) Total net area of flood openings in A8.b sq in

d) Engineered flood openings? ☐ Yes ☐ No

A9. For a building with an attached garage:

a) Square footage of attached garage 1142.00 sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade

c) Total net area of flood openings in A9.b sq in

d) Engineered flood openings? ☐ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
City of Ketchum, 160023	Blaine	Idaho

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
16013C0442E	E	11-26-2010		AE	5786.5' (PER FIRM PROFILE)

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☐ NAVD 1988 ☒ Other/Source: FIRM / FIS

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No

Designation Date: ☐ CBRS ☐ OPA

Appendix F

OMB No. 1660-0008
Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 121 BADGER LANE			Policy Number:
City KETCHUM	State Idaho	ZIP Code 83340	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: _____ Vertical Datum: _____

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

		Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	5788.5	☒ feet	☐ meters
b) Top of the next higher floor	5800.2	☒ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)		☐ feet	☐ meters
d) Attached garage (top of slab)	5787.0	☒ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	5787.0	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	5786.2	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	5787.0	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	5785.0	☒ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.
I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☐ Yes ☒ No ☐ Check here if attachments.

Certifier's Name	License Number	Place Seal Here
Title		
Company Name		
Address		
City	State ZIP Code	
Signature	Date Telephone Ext.	

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

HEAT PUMP UNITS (LOCATED IN AREA OUTSIDE OF FLOODPLAIN ZONE)

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 121 BADGER LANE			Policy Number:
City KETCHUM	State Idaho	ZIP Code 83340	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name			
Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 121 BADGER LANE			Policy Number:
City KETCHUM	State Idaho	ZIP Code 83340	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ ☐ feet ☐ meters Datum _____

G10. Community's design flood elevation: _____ ☐ feet ☐ meters Datum _____

Local Official's Name	Title
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

Appendix F

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 121 BADGER LANE			Policy Number:
City KETCHUM	State Idaho	ZIP Code 83340	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

Photo One

Photo One

Photo One Caption

Clear Photo One

Photo Two

Photo Two Caption

Clear Photo Two

Appendix F

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 121 BADGER LANE			Policy Number:
City KETCHUM	State Idaho	ZIP Code 83340	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo Three

Photo Three

Photo Three Caption

Clear Photo Three

Photo Four

Photo Four

Photo Four Caption

Clear Photo Four

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2022

Instructions for Completing the Elevation Certificate

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form. For Zones AO and A (without BFE), a community official, a property owner, or an owner's representative may provide information on this certificate, unless the elevations are intended for use in supporting a request for a LOMA or LOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA or LOMR-F.

The property owner, the owner's representative, or local official who is authorized by law to administer the community floodplain ordinance can complete Section A and Section B. The partially completed form can then be given to the land surveyor, engineer, or architect to complete Section C. The land surveyor, engineer, or architect should verify the information provided by the property owner or owner's representative to ensure that this certificate is complete.

In Puerto Rico only, elevations for building information and flood hazard information may be entered in meters.

SECTION A – PROPERTY INFORMATION

Items A1–A4. This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building's complete street address, and the lot and block numbers. If the building's address is different from the owner's address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, "building" means both a building and a manufactured (mobile) home.

A map may be attached to this certificate to show the location of the building on the property. A tax map, FIRM, or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of the appropriate section if needed, or attach additional comments.

Item A5. Provide latitude and longitude coordinates for the center of the front of the building. Use either decimal degrees (e.g., 39.5043°, −110.7585°) or degrees, minutes, seconds (e.g., 39° 30' 15.5", −110° 45' 30.7") format. If decimal degrees are used, provide coordinates to at least 5 decimal places or better. When using degrees, minutes, seconds, provide seconds to at least 1 decimal place or better. The latitude and longitude coordinates must be accurate within 66 feet. When the latitude and longitude are provided by a surveyor, check the "Yes" box in Section D and indicate the method used to determine the latitude and longitude in the Comments area of Section D. If the Elevation Certificate is being certified by other than a licensed surveyor, engineer, or architect, this information is not required. Provide the type of datum used to obtain the latitude and longitude. FEMA prefers the use of NAD 1983.

Item A6. If the Elevation Certificate is being used to obtain flood insurance through the NFIP, the certifier must provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3" × 3". Digital photographs are acceptable.

Item A7. Select the diagram on pages 7–9 that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C2.a–h. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified.

Item A8.a. Provide the square footage of the crawlspace or enclosure(s) below the lowest elevated floor of an elevated building with or without permanent flood openings. Take the measurement from the outside of the crawlspace or enclosure(s). Examples of elevated buildings constructed with crawlspace and enclosure(s) are shown in Diagrams 6–9

on pages 8–9. Diagrams 2A, 2B, 4, and 9 should be used for a building constructed with a crawlspace floor that is below the exterior grade on all sides.

Items A8.b–d. Enter in Item A8.b the number of permanent flood openings in the crawlspace or enclosure(s) that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. Estimate the total net area of all such permanent flood openings in square inches, excluding any bars, louvers, or other covers of the permanent flood openings, and enter the total in Item A8.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A8.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the crawlspace or enclosure(s) have no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter "N/A" for not applicable in Items A8.b–c.

Item A9.a. Provide the square footage of the attached garage with or without permanent flood openings. Take the measurement from the outside of the garage.

Items A9.b–d. Enter in Item A9.b the number of permanent flood openings in the attached garage that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. This includes any openings that are in the garage door that are no higher than 1.0 foot above the adjacent grade. Estimate the total net area of all such permanent flood openings in square inches and enter the total in Item A9.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A9.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the garage has no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter "N/A" for not applicable in Items A9.b–c.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate on the basis of the FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIRM panel that includes the building's location. Information about the current FIRM is available from the Federal Emergency Management Agency (FEMA) by calling 1-800-358-9616. If a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR-F) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

For a building in an area that has been annexed by one community but is shown on another community's FIRM, enter the community name and 6-digit number of the annexing community in Item B1, the name of the county or new county, if necessary, in Item B2, and the FIRM index date for the annexing community in Item B6. Enter information from the actual FIRM panel that shows the building location, even if it is the FIRM for the previous jurisdiction, in Items B4, B5, B7, B8, and B9.

If the map in effect at the time of the building's construction was other than the current FIRM, and you have the past map information pertaining to the building, provide the information in the Comments area of Section D.

Item B1. NFIP Community Name & Community Number. Enter the complete name of the community in which the building is located and the associated 6-digit community number. For a newly incorporated community, use the name and 6-digit number of the new community. Under the NFIP, a "community" is any State or area or political subdivision thereof, or any Indian tribe or authorized native organization, that has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the NFIP *Community Status Book*, available on FEMA's web site at https://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book, or call 1-800-358-9616.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county, enter "unincorporated area." For an independent city, enter "independent city."

Item B3. State. Enter the 2-letter state abbreviation (for example, VA, TX, CA).

Items B4–B5. Map/Panel Number and Suffix. Enter the 10-character "Map Number" or "Community Panel Number" shown on the FIRM where the building or manufactured (mobile) home is located. For maps in a county-wide format, the sixth character of the "Map Number" is the letter "C" followed by a 4-digit map number. For maps not in a county-wide format, enter the "Community Panel Number" shown on the FIRM.

Item B6. FIRM Index Date. Enter the effective date or the map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the map effective date or the map revised date shown on the FIRM panel. This will be the latest of all dates shown on the map. The current FIRM panel effective date can be determined by calling 1-800-358-9616.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter "A" or "V" are considered Special Flood Hazard Areas. The flood zones are A, AE, A1–A30, V, VE, V1–V30, AH, AO, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. Each flood zone is defined in the legend of the FIRM panel on which it appears.

Item B9. Base Flood Elevation(s). Using the appropriate Flood Insurance Study (FIS) Profile, Floodway Data Table, or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site. If the building is located in more than 1 flood zone in Item B8, list all appropriate BFEs in Item B9. BFEs are shown on a FIRM or FIS Profile for Zones A1–A30, AE, AH, V1–V30, VE, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO; flood depth numbers are shown for Zone AO. Use the AR BFE if the building is located in any of Zones AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. In A or V zones where BFEs are not provided on the FIRM, BFEs may be available from another source. For example, the community may have established BFEs or obtained BFE data from other sources for the building site. For subdivisions and other developments of more than 50 lots or 5 acres, establishment of BFEs is required by the community's floodplain management ordinance. If a BFE is obtained from another source, enter the BFE in Item B9. In an A Zone where BFEs are not available, complete Section E and enter N/A for Section B, Item B9. Enter the BFE to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Item B10. Indicate the source of the BFE that you entered in Item B9. If the BFE is from a source other than FIS Profile, FIRM, or community, describe the source of the BFE.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced as shown on the map legend. The vertical datum is shown in the Map Legend and/or the Notes to Users on the FIRM.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). (OPAs are portions of coastal barriers that are owned by Federal, State, or local governments or by certain non-profit organizations and used primarily for natural resources protection.) Federal flood insurance is prohibited in designated CBRS areas or OPAs for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS or OPA designation. For the first CBRS designations, that date is October 1, 1983. Information about CBRS areas and OPAs may be obtained on the FEMA web site at https://www.fema.gov/national-flood-insurance-program/coastal-barrier-resources-system.

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO, or if this certificate is being used to support a request for a LOMA or LOMR-F. If the building is located in Zone AO or Zone A (without BFE), complete Section E instead. To ensure that all required elevations are obtained, it may be necessary to enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or machinery and equipment).

Surveyors may not be able to gain access to some crawlspaces to shoot the elevation of the crawlspace floor. If access to the crawlspace is limited or cannot be gained, follow one of these procedures.

- Use a yardstick or tape measure to measure the height from the floor of the crawlspace to the "next higher floor," and then subtract the crawlspace height from the elevation of the "next higher floor." If there is no access to the

crawlspace, use the exterior grade next to the structure to measure the height of the crawlspace to the "next higher floor."

- Contact the local floodplain administrator of the community in which the building is located. The community may have documentation of the elevation of the crawlspace floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawlspace floor to the next higher floor, try to verify this by looking inside the crawlspace through any openings or vents.

In all 3 cases, use the Comments area of Section D to provide the elevation and a brief description of how the elevation was obtained.

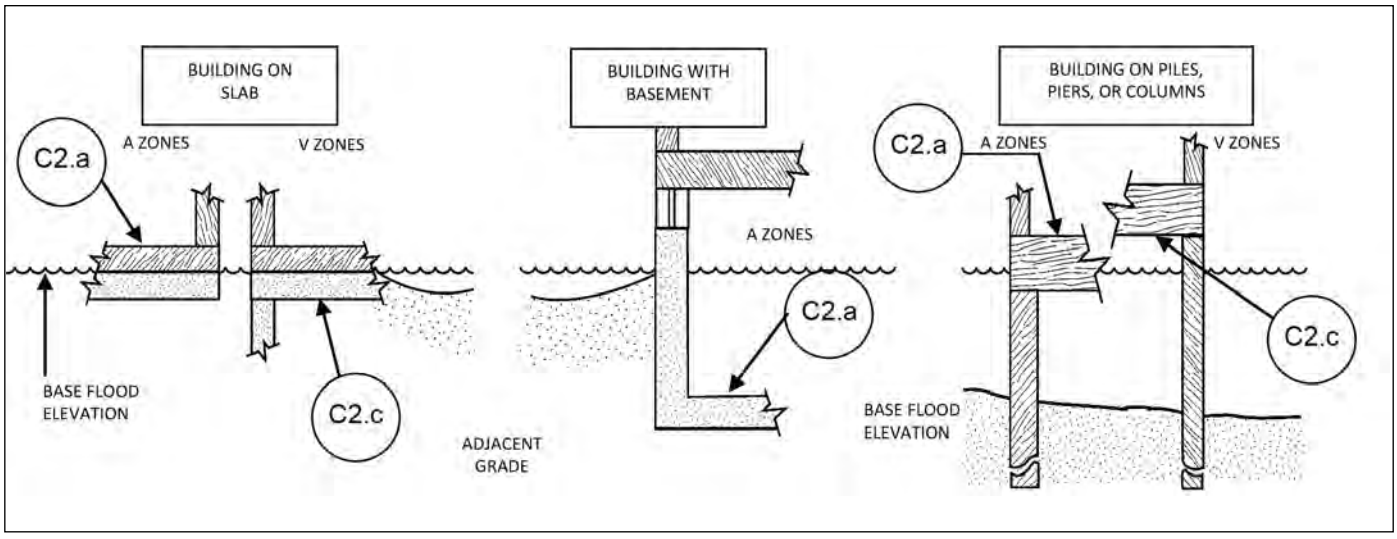
Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first 2 choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C2.a–h. Use the Comments area of Section D to provide elevations obtained from the construction plans or drawings. Select "Finished Construction" only when all machinery and/or equipment such as furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.

Item C2. A field survey is required for Items C2.a–h. Most control networks will assign a unique identifier for each benchmark. For example, the National Geodetic Survey uses the Permanent Identifier (PID). For the benchmark utilized, provide the PID or other unique identifier assigned by the maintainer of the benchmark. For GPS survey, indicate the benchmark used for the base station, the Continuously Operating Reference Stations (CORS) sites used for an On-line Positioning User Service (OPUS) solution (also attach the OPUS report), or the name of the Real Time Network used.

Also provide the vertical datum for the benchmark elevation. All elevations for the certificate, including the elevations for Items C2.a–h, must use the same datum on which the BFE is based. Show the conversion from the field survey datum used if it differs from the datum used for the BFE entered in Item B9 and indicate the conversion software used. Show the datum conversion, if applicable, in the Comments area of Section D.

For property experiencing ground subsidence, the most recent reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted. Enter elevations in Items C2.a–h to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items C2.a–d. Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item A7) in Items C2.a–c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C2.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C2.c. If the flood zone cannot be determined, enter elevations for all of Items C2.a–h. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings elevated on a crawlspace, Diagrams 8 and 9, enter the elevation



of the top of the crawlspace floor in Item C2.a, whether or not the crawlspace has permanent flood openings (flood vents). *If any item does not apply to the building, enter "N/A" for not applicable.*

Item C2.e. Enter the lowest platform elevation of at least 1 of the following machinery and equipment items: elevators and their associated equipment, furnaces, hot water heaters, heat pumps, and air conditioners in an attached garage or enclosure or on an open utility platform that provides utility services for the building. Note that elevations for these specific machinery and equipment items are required in order to rate the building for flood insurance. Local floodplain management officials are required to ensure that all machinery and equipment servicing the building are protected from flooding. Thus, local officials may require that elevation information for all machinery and equipment, including ductwork, be documented on the Elevation Certificate. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/or equipment. Indicate machinery/equipment type and its general location, e.g., on floor inside garage or on platform affixed to exterior wall, in the Comments area of Section D or Section G, as appropriate. *If this item does not apply to the building, enter "N/A" for not applicable.*

Items C2.f–g. Enter the elevation of the ground, sidewalk, or patio slab immediately next to the building. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

Item C2.h. Enter the lowest grade elevation at the deck support or stairs. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

Complete as indicated. This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by law to certify elevation information. Place your license number, your seal (as allowed by the State licensing board), your signature, and the date in the box in Section D. You are certifying that the information on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D to provide datum, elevation, openings, or other relevant information not specified elsewhere on the certificate.

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO or Zone A (without BFE). Otherwise, complete Section C instead. Explain in the Section F Comments area if the measurement provided under Items E1–E4 is based on the "natural grade."

Items E1.a and b. Enter in Item E1.a the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG). Enter in Item E1.b the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the lowest adjacent grade (LAG). For buildings in Zone AO, the community's floodplain management ordinance requires the lowest floor of the building be elevated above the highest adjacent grade at least as high as the depth number on the FIRM. Buildings in Zone A (without BFE) may qualify for a lower insurance rate if an engineered BFE is developed at the site.

Item E2. For Building Diagrams 6–9 with permanent flood openings (see pages 8–9), enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the next higher floor or elevated floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG).

Item E3. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, for the top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E4. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, of the platform elevation that supports the machinery and/or equipment servicing the building. Indicate machinery/equipment type in the Comments area of Section F. *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community's floodplain management ordinance.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements taken by a property owner or property owner's representative when responding to Sections A, B, and E. The address entered in this section must be the actual mailing address of the property owner or property owner's representative who provided the information on the certificate.

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

Complete as indicated. The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Section C may be filled in by the local official as provided in the instructions below for Item G1. If the authorized community official completes Sections C, E, or G, complete the appropriate item(s) and sign this section.

Check **Item G1** if Section C is completed with elevation data from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/A1–A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.

Check **Item G2** if information is entered in Section E by the community for a building in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

Check **Item G3** if the information in Items G4–G10 has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G4–G10 provide a way to document these determinations.

Item G4. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G5. Date Permit Issued. Enter the date the permit was issued for the building.

Item G6. Date Certificate of Compliance/Occupancy Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G7. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement. The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G8. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9. BFE. Using the appropriate FIRM panel, FIS Profile, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

Item G10. Community's design flood elevation. Enter the elevation (including freeboard above the BFE) to which the community requires the lowest floor to be elevated. Indicate the elevation datum used.

Enter your name, title, and telephone number, and the name of the community. Sign and enter the date in the appropriate blanks.

Building Diagrams

The following diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7, the square footage of crawlspace or enclosure(s) and the area of flood openings in square inches in Items A8.a–c, the square footage of attached garage and the area of flood openings in square inches in Items A9.a–c, and the elevations in Items C2.a–h.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).

DIAGRAM 1A

All slab-on-grade single- and multiple-floor buildings (other than split-level) and high-rise buildings, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least 1 side.*

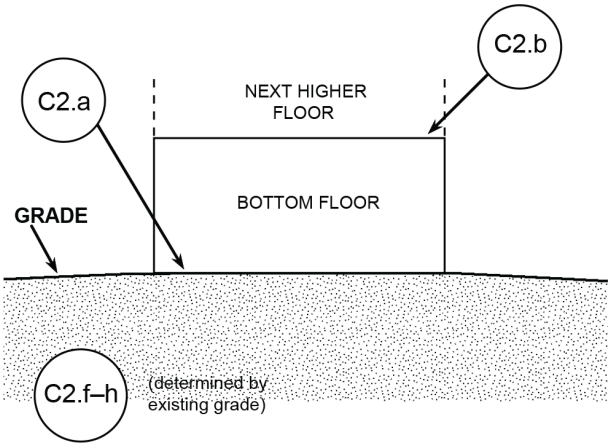


DIAGRAM 1B

All raised-slab-on-grade or slab-on-stem-wall-with-fill single- and multiple-floor buildings (other than split-level), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least 1 side.*

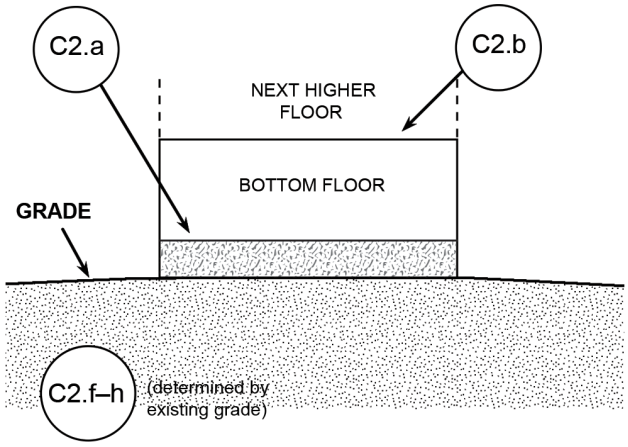


DIAGRAM 2A

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

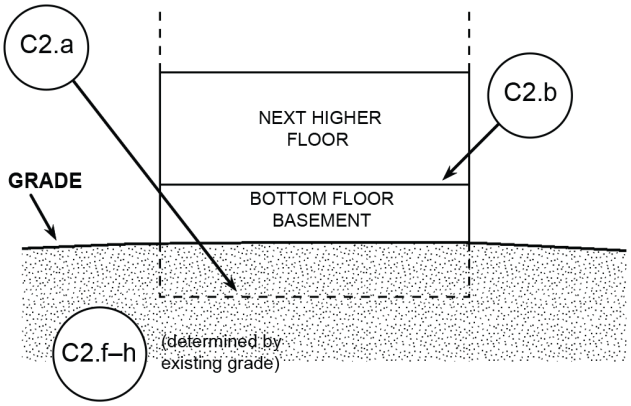
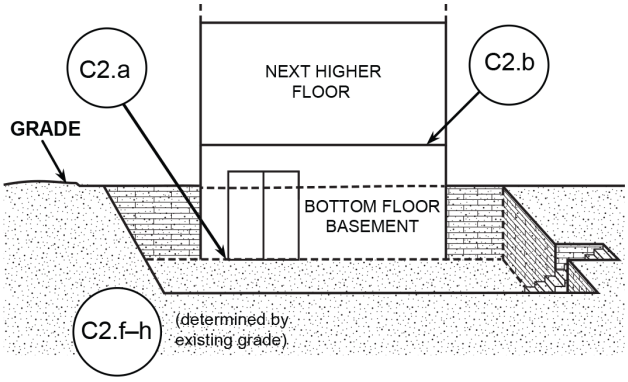


DIAGRAM 2B

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides; most of the height of the walls is below ground level on all sides; and the door and area of egress are also below ground level on all sides.*



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

Building Diagrams

DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least 1 side.*

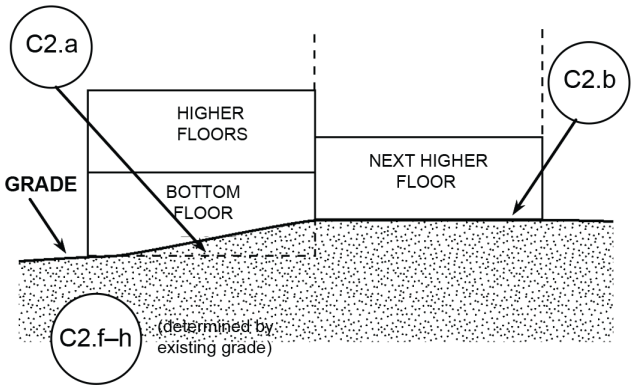


DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

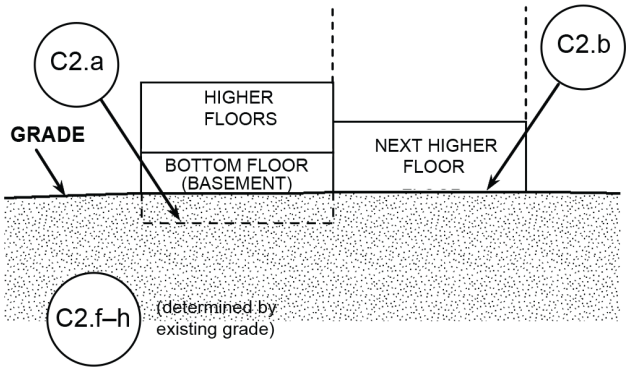


DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or insect screening is permissible).

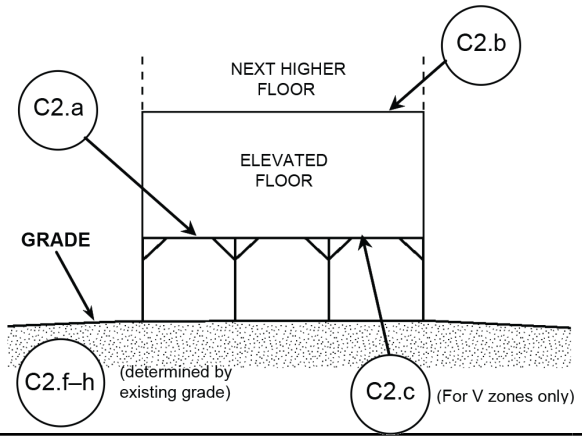
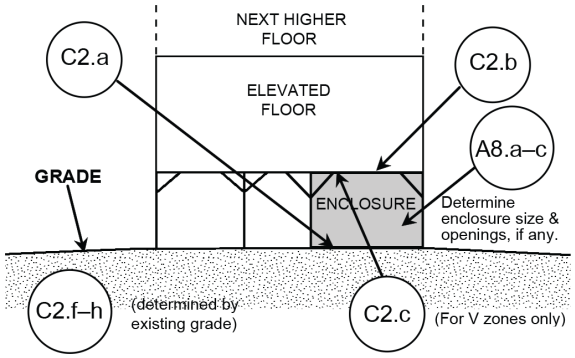


DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

Building Diagrams

DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.

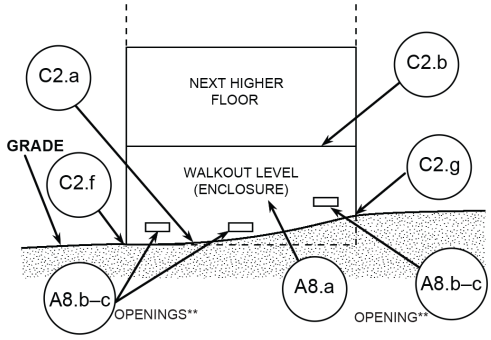


DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings** present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.

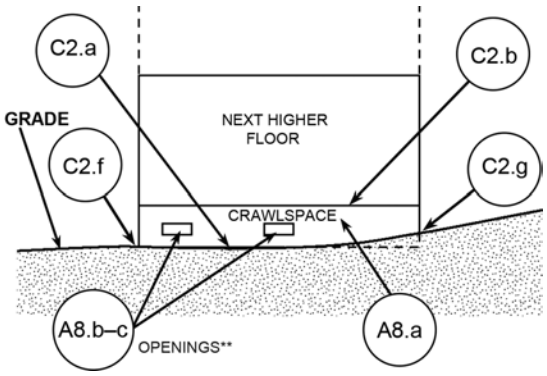
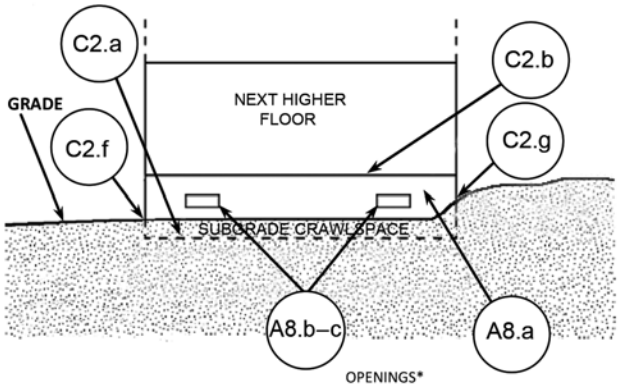


DIAGRAM 9

All buildings (other than split-level) elevated on a sub-grade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2A or 2B.)



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

Appendix G

Joint Application to USACE

Appendix G

121 Badger Lane, LLC
Rocking Horse Ranch Subdivision No. 2, Parcel 4
121 Badger Lane
City of Ketchum, Blaine County, Idaho

October 2022

Prepared for

121 Badger Lane, LLC
Presidio Vista Properties
P.O. Box 10092
Ketchum, ID 83340

Pre-construction notification is being submitted on behalf of 121 Badger Lane, LLC owners of Parcel 4, Rocking Horse Ranch Subdivision No. 2, located 121 Badger Lane, Section 13, Township 4N., Range 17E., City of Ketchum, Blaine County, Idaho. Applicants request permit approval for residential development within waters of the United States, jurisdictional wetlands. Proposed development plan will require wetland fill applications for planned development applications: access driveway, attendant landscape features and associated landscape grading applications. Proposed development applications will impact, permanently fill approximately 0.029 ac. (1,277 sq. ft.).

Proposed development applicaitons have been designed and will be constructed to avoid and minimize adverse impacts to identified wetland resources to the maximum extent practicable. Mitigation to offset for the proposed wetland impacts [permanent fill] will be implemented in conjunction with the City of Ketchum Floodplain Development regulations and requirements. On-site compensatory mitigation applications will be conducted on a 1 to 1 (minimum) replacement ratio. Due to the proposed wetland mitigation applications, locations of proposed development applications, site drainage characteristics and preserved vegetative buffers, changes to wetland functions, hydrological characteristics and processes are not anticipated. No impacts to surface water resources are proposed.

Project will incorporate all applicable Best Management Practices (BMPs) such as silt fence and straw wattles to protect resource values and ensure compliance with Water Quality Standards and applicable environmental regulations. All disturbed areas will be reclaimed and vegetated, noxious and invasive plant species will be controlled within the parcel on a as needed basis.

Adverse environmental effects of the proposed residential development applications are considered to be minimal.

PRE-CONSTRUCTION NOTIFICATION
NATIONWIDE PERMIT 29 - RESIDENTIAL DEVELOPMENT [NWP-29]

JOINT APPLICATION FOR PERMITS

Appendix G

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY			
USACE NWW-	Date Received:	☐ Incomplete Application Returned	Date Returned:
Idaho Department of Water Resources No.	Date Received:	☐ Fee Received DATE:	Receipt No.:
Idaho Department of Lands No.	Date Received:	☐ Fee Received DATE:	Receipt No.:

INCOMPLETE APPLICATIONS MAY NOT BE PROCESSED

1. **CONTACT INFORMATION - APPLICANT** Required:			2. **CONTACT INFORMATION - AGENT:**		
Name: Matt Scoggins - Presidio Vista Properties			Name: Trent A. Stumph		
Company: 121 Badger Lane, LLC			Company: SAWTOOTH ENVIRONMENTAL CONSULTING, LLC		
Mailing Address: P.O. Box 10092			Mailing Address: P.O. Box 2707, 540 North 1st. Avenue		
City: Ketchum	State: ID	Zip Code: 83340	City: Ketchum	State: ID	Zip Code: 83340
Phone Number *(include area code)*: 214-557-5533	E-mail: matt@presidiovistaproperties.com		Phone Number *(include area code)*: 208-727-9748	E-mail: trent@sawtoothenvironmentalcom	

3. PROJECT NAME or TITLE: 121 Badger Lane - Residential Dev.			4. PROJECT STREET ADDRESS: 121 Badger Lane	
5. PROJECT COUNTY: Blaine	6. PROJECT CITY: Ketchum		7. PROJECT ZIP CODE: 83340	8. NEAREST WATERWAY/WATERBODY: Big Wood River
9. TAX PARCEL ID#: RPK05130000040	10. LATITUDE: 43.680220° N LONGITUDE: -114.375730° W	11a. 1/4: NW 11b. 1/4: SE 11c. SECTION: 13	11d. TOWNSHIP: 4N	11e. RANGE: 17E
12a. ESTIMATED START DATE: May-01, 2023	12b. ESTIMATED END DATE: Oct-31, 2024	13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? ☒ NO ☐ YES Tribe:		
13b. IS PROJECT LOCATED IN LISTED ESA AREA? ☒ NO ☐ YES		13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? ☒ NO ☐ YES		

14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.

Parcel approximately 0.50 miles from downtown Ketchum, from Main Street and Sun Valley Rd., intersection head southwest on Sun Valley Road, 0.19 mi. Turn right onto Second Ave., 0.16 mi. Turn left onto 6th Street West, 0.16 mi. Right on to N 4th Ave then left onto Buss Elle Road, 0.15 mi. Right onto Badger Lane, 0.08 mi. (end of road), 121 Badger Lane driveway on the left.

15. PURPOSE and NEED: ☐ Commercial ☐ Industrial ☐ Public ☒ Private ☐ Other

Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project.

Residential development on unimproved lot, Rocking Horse Ranch Subd. #2, Parcel 4, [121 Badger Ln.]. Proposed development applications: residential home-site, accessory dwelling unit, access driveway, attendant landscape features and associated grading applications. Proposed project applications will impact approximately 0.029 ac. (1277 sq. ft.) of identified wetland resources. Proposed WL mitigation will create: 0.029 ac. (1278 sq. ft.) wetland resources.

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

Appendix G

121 Badger Lane residential development applications impacting WOTUS include: construction of driveway access, attendant landscape elements and associated landscape grading applications. Project applications within identified wetlands / area of impact, approximately 0.029 ac (1277 sq. ft.). Project applications involve the import and placement of approximately 151 cu. yds. of fill materials (soil/gravel/stone mix) and associated roadway materials. Standard construction equipment utilized to place and distribute materials (track excavator, loader and dozer).

Wetlands identified within the subject parcel are classified as Palustrine Scrub-Shrub Seasonally Flooded [PSSC] wetland type (USFWS-NWI 1984). Wetland characteristics associated with the identified wetland resources include predominant wetland vegetation (native shrubs and facultative grasses) and hydric soils.

Due to the locations of the proposed development applications, site drainage characteristics, proposed wetland / floodplain mitigation applications and preserved vegetative buffers, changes to the hydrological characteristics and processes (periodic floodplain inundation and associated groundwater dynamics) are not anticipated. No impacts to surface water resources are proposed. Proposed wetland / floodplain mitigation applications will create: 0.029 ac. (1278 sq. ft.) wetland resources.

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

Proposed development applications and associated locations are considered to be the best alternative to gain access to the existing designated building envelope, provide for reasonable use of the existing platted parcel, and to achieve project objectives. Project has been designed to avoid and minimize impacts to wetlands to the greatest extent practicable.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

121 Badger Lane residential development project has been designed and will be constructed to avoid and minimize adverse impacts to identified wetland resources to the maximum extent practicable. Mitigation to offset for the proposed wetland impacts [permanent fill] will be implemented in conjunction with the City of Ketchum Floodplain Development regulations and requirements. On-site compensatory mitigation applications will be conducted on a 1 to 1 (minimum) replacement ratio. Due to the proposed wetland mitigation applications, locations of proposed development applications, site drainage characteristics and preserved vegetative buffers, changes to wetland functions, hydrological characteristics and processes are not anticipated. No impacts to surface water resources are proposed. Adverse environmental effects of the proposed residential development applications are considered to be minimal.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	50	cubic yards
Dredged Material:		cubic yards
Clean Sand:		cubic yards
Clay:		cubic yards
Gravel, Rock, or Stone:	101	cubic yards
Concrete:		cubic yards
Other (describe):		cubic yards
Other (describe:		cubic yards
TOTAL:	151	cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	0.029	acres	1,277	sq ft.	151 cubic yards
Backfill & Bedding:		acres		sq ft.	cubic yards
Land Clearing:		acres		sq ft.	cubic yards
Dredging:		acres		sq ft.	cubic yards
Flooding:		acres		sq ft.	cubic yards
Excavation:		acres		sq ft.	cubic yards
Draining:		acres		sq ft.	cubic yards
Other:		acres		sq ft.	cubic yards
TOTALS:	0.029	acres	1,277	sq ft.	151 cubic yards

Appendix G

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? ☒ NO ☐ YES If yes, describe ALL work that has occurred including dates.

NONE

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

NONE

23. ☐ YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: Floodplain Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? ☒ NO ☐ YES If yes, contact the floodplain administrator in the local government jsrisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

- ☐ NO ☒ YES Is applicant willing to assume that the affected waterbody is high quality?
- ☒ NO ☐ YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
- ☒ NO ☐ YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICTES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

Proposed project applications will incorporate all applicable Best Management Practices to protect resource values and to ensure compliance with local, state and Federal Water Quality Standards and applicable environmental regulations. The following applications will be implemented throughout the identified project areas during all construction phases of the project and site reclamation ensure successful project results.

1) Project applications will be constructed and completed when conditions are favorable and project locations are suitable for construction applications.
2) Practical construction sequencing and appropriate BMP applications, silt fence and/or straw wattles utilized and placed in appropriate locations within and along delineated limits of disturbance [LOD] to ensure compliance with Federal, state and local regulations.
4) All construction equipment will be free of leaks and in good working order. Storage, fueling and any unexpected repairs of equipment will be completed outside of wetlands and other sensitive habitat areas.
5) An emergency spill kit will be kept on site during construction activities.
6) All disturbed areas outside of the identified development footprint will be reclaimed and vegetated with native grass and shrub species, bare soils will be stabilized with broadcast seed applications and containerized plantings. Reclamation applications will occur as soon as the proposed construction activities are complete.
7) Preserve and maintain native vegetation buffers within sensitive areas not disturbed by proposed development applications.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
NA	Big Wood River	Perennial	NONE	
			TOTAL STREAM IMPACTS (Linear Feet):	

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft
Residential Development	Scrub/Shrub - PSSC	130	Development applications and assoicated landscape grading	1,160
			TOTAL WETLAND IMPACTS (Square Feet):	1,160

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: Provide contact information of ALL adjacent property owners below.

Name: Bureau of Land Management [BLM] Mailing Address: 400 West Front Street City: Shoshone State: ID Zip Code: 83352 Phone Number (include area code): 208.732.7200 E-mail: BLM_ID_ShoshoneOffice@blm.gov	Name: Frederick M. DuBois Mailing Address: P.O. Box 1541 City: Ketchum State: ID Zip Code: 83340 Phone Number (include area code): 208.726.9250 E-mail:
Name: Nicholas and Stephanie Osborne Mailing Address: 85 Roberta Drive City: Woodside State: CA Zip Code: 94062 Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Colby J Williams Mailing Address: 205 Stonewood Court City: Las Vegas State: NV Zip Code: 89107 Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Thomas B. Campion Mailing Address: P.O. Box 538 City: Ketchum State: ID Zip Code: 83340 Phone Number (include area code): 208.726.1688 E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIAZATION / CERTIFICATION OF AGENT / ACCESS

Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.

Signature of Applicant: _____ *Date:* 10/24/22

Signature of Agent: _____ *Date:* 10/24/22

This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: "*Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both*".

Appendix G.1

Permit Authorization from USACE

Appendix G.1

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
720 EAST PARK BOULEVARD, SUITE 245
BOISE, IDAHO 83712-7757

February 21, 2023

WALLA WALLA DISTRICT
REGULATORY DIVISION

SUBJECT: NWW-2022-00441, Blaine County 121 Badger Lane Residential Development

Matt Scoggins – Presidio Vista Properties
121 Badger Lane, LLC
P.O. Box 10092
Ketchum, Idaho 83340

Dear Mr. Scoggins:

We have determined that your proposed project, Blaine County 121 Badger Lane Residential Development, is authorized in accordance with Department of the Army (DA) **Nationwide Permit (NWP) No. 29: Residential Developments**. This project is located at 121 Badger Lane, within Section 13 of Township 4 North, Range 17 East, near coordinates 43.68022º N latitude and -114.37573º W longitude, in Ketchum, Blaine County, Idaho. Please refer to File Number NWW-2022-00441 in all future correspondence with our office regarding this project.

Project activities include the discharge of fill material within delineated wetlands that are adjacent to the Big Wood River, which may be considered waters of the United States. The purpose of the proposed project is to construct a residential house, accessory dwelling unit, driveway access and other amenities associated with residential development. The work will entail discharging 151 cubic yards of fill material to facilitate the construction of a driveway access road, home-site and accessory dwelling unit, landscape grading applications and landscape elements. Impacts from the proposed work will result in approximately 0.029 acres of permanent loss to scrub-shrub wetlands. Additional work will entail the establishment of 0.029 acres of wetlands on the property as voluntary mitigation. All work shall be done in accordance with the enclosed drawings, titled: *121 Badger Lane, LLC Maps and Site Plans,* dated *October 24, 2022.*

DA permit authorization is necessary because your project may involve the discharge of fill material into waters of the U.S. This authorization is outlined in Section 404 of the Clean Water Act (33 U.S.C. 1344).

You must comply with all general, regional, and special conditions, for this

verification letter to remain valid and to avoid possible enforcement actions. The general and regional permit conditions for *NWP No. 29: Residential Developments* are attached and also available online[1]. In addition, you must also comply with the special conditions listed below.

The following Special Conditions includes:

Special Condition 1: The permittee is responsible for all work done by any contractor. Permittee shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization. Permittee shall also ensure these terms and conditions are incorporated into engineering plans and contract specifications.

You must also comply with the conditions detailed in the attached Section 401 Water Quality Certification (WQC) issued by the Idaho Department of Environmental Quality (IDEQ) on December 4, 2020. If you have any questions regarding the conditions set forth in the WQC, please contact IDEQ directly at 208-736-2190, Twin Falls Regional Office.

Nationwide Permit General Condition 30 (Compliance Certification) requires that every permittee who has received NWP verification must submit a signed certification regarding the completed work and any required mitigation. This Compliance Certification form is enclosed for your convenience and must be completed and returned to us within 30 days of your project's completion.

This letter of authorization does not convey any property rights, or any exclusive privileges and does not authorize any injury to property or excuse you from compliance with other Federal, State, or local statutes, ordinances, regulations, or requirements which may affect this work.

This verification is valid until **March 14, 2026**, unless the NWP is modified, suspended or revoked. If your project, as permitted under this NWP verification, is modified in any way you must contact our office prior to commencing any work activities. In the event that you have not completed construction of your project by March 14, 2026, please contact us at least 60-days prior to this date. A new application and verification may be required.

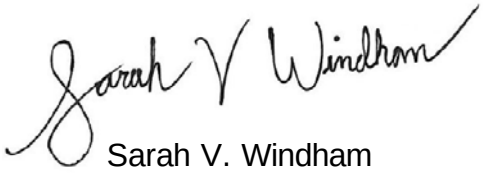
We actively use feedback to improve our delivery and provide you with the best possible service. If you would like to provide feedback, please take our online survey[2].

[1] http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/
[2] https://regulatory.ops.usace.army.mil/customer-service-survey/

If you have questions or if you would like a paper copy of the survey, please contact the Walla Walla District Regulatory. For more information about the Walla Walla District Regulatory program, you can visit us online[3].

If you have any questions or need additional information about this permit authorization, you can contact me by phone at 208-433-4469, by mail at the address in the letterhead, or email at sarah.v.windham@usace.army.mil. For informational purposes, a copy of this letter has been sent to: the Idaho Department of Environmental Quality, the Idaho Department of Water Resources, Kristine Hilt with Blaine County and Trent Stumph, designated agent with Sawtooth Environmental Consulting, LLC.

Sincerely,



Sarah V. Windham
Project Manager, Regulatory Division

Encls
Transfer of Nationwide Permit Form
Compliance Certification
Drawings titled: *121 Badger Lane, LLC Maps and Site Plans,* dated *October 24, 2022.*
Nationwide Permit 29: Residential Developments general and regional conditions
IDEQ General Water Quality Certification dated December 04, 2020

[3] http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/

Appendix G.1

TRANSFER OF NATIONWIDE PERMIT

When the structures or work authorized by this Nationwide Permit, **NWW-2022-00441 Blaine County 121 Badger Lane Residential Development**, are still in existence at the time the property is transferred. The terms and conditions of this Nationwide Permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this Nationwide Permit, the associated liabilities and compliance with the terms and conditions the transferee must sign and date below.

Name of New Owner:

Street Address:

Mailing Address:

City, State, Zip:

Phone Number:

_____ _____

Signature of TRANSFEREE *DATE*

Appendix G.1

COMPLIANCE CERTIFICATION

US Army Corps of Engineers
Walla Walla District

Permit Number: NWW-2022-00441

Name of Permittee: Presidio Vista Properties

Date of Issuance: February 21, 2023

Upon completion of the activity authorized by this permit and any mitigation required by the permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Walla Walla District
Boise Regulatory Office
720 East Park Blvd., Suite 245
Boise, Idaho 83712-7757

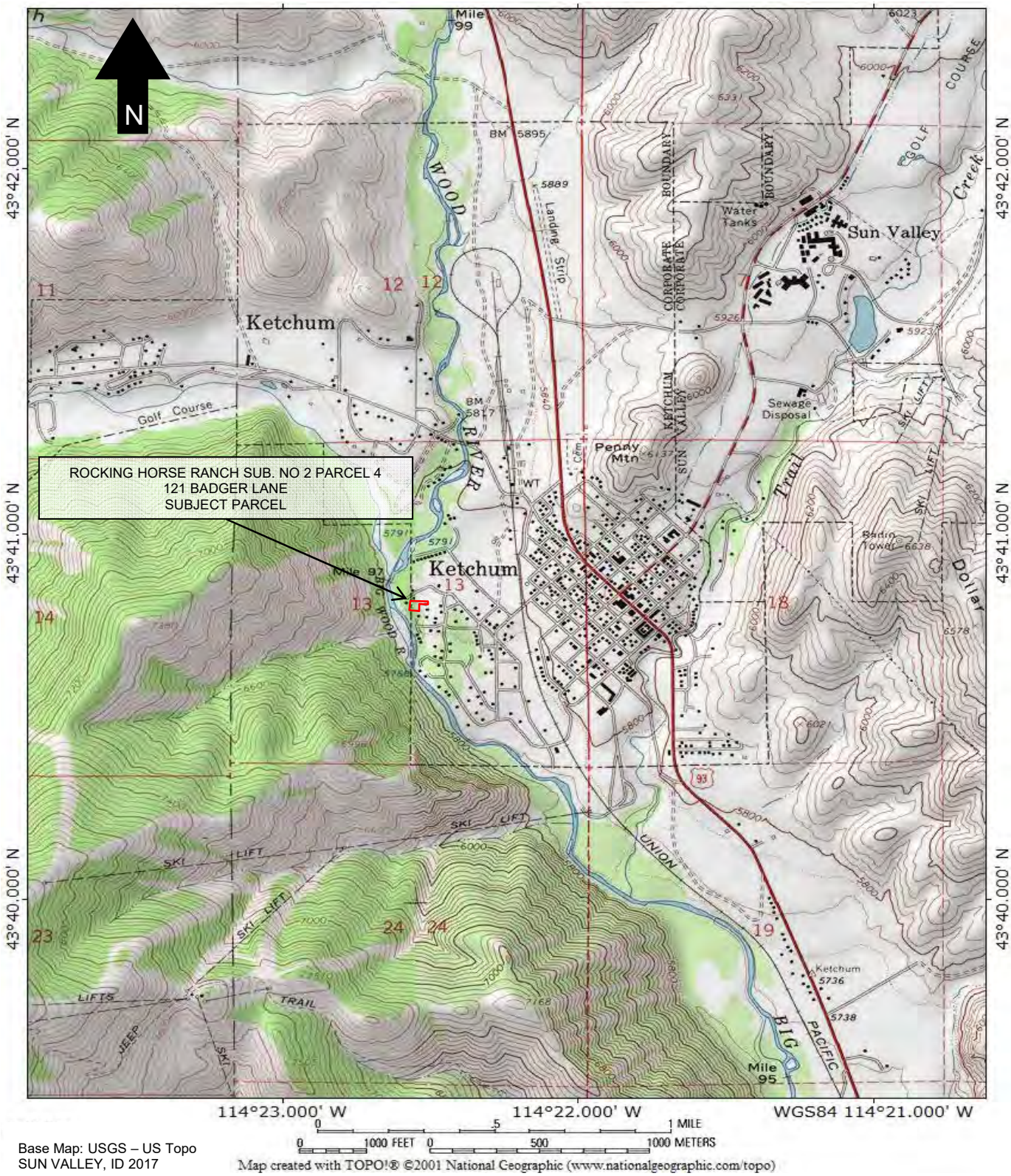
Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with all terms and conditions of this permit, the permit is subject to suspension, modification, or revocation and you are subject to an enforcement action by this office.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit. The required mitigation was also completed in accordance with the permit conditions.

_____ _____

Signature of PERMITEE *DATE*

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - PROJECT LOCATION VICINITY MAP

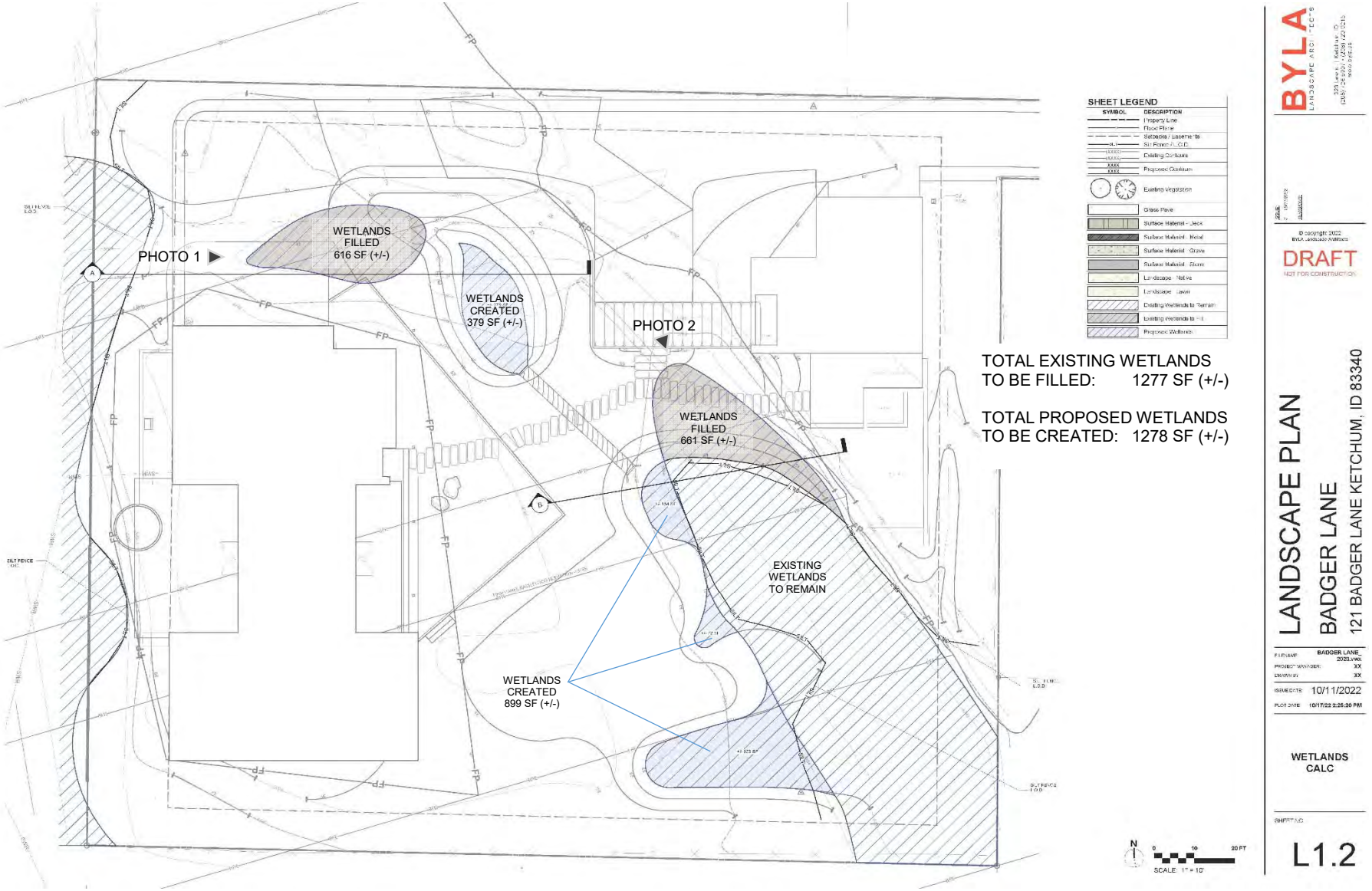


Base Map: USGS – US Topo
SUN VALLEY, ID 2017

121 BADGER LANE, LLC
Rocking Horse Ranch Subdivision, No. 2, Parcel 4, 121 Badger Lane
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

LOCATION VICINITY MAP

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - SITE PLAN MAP

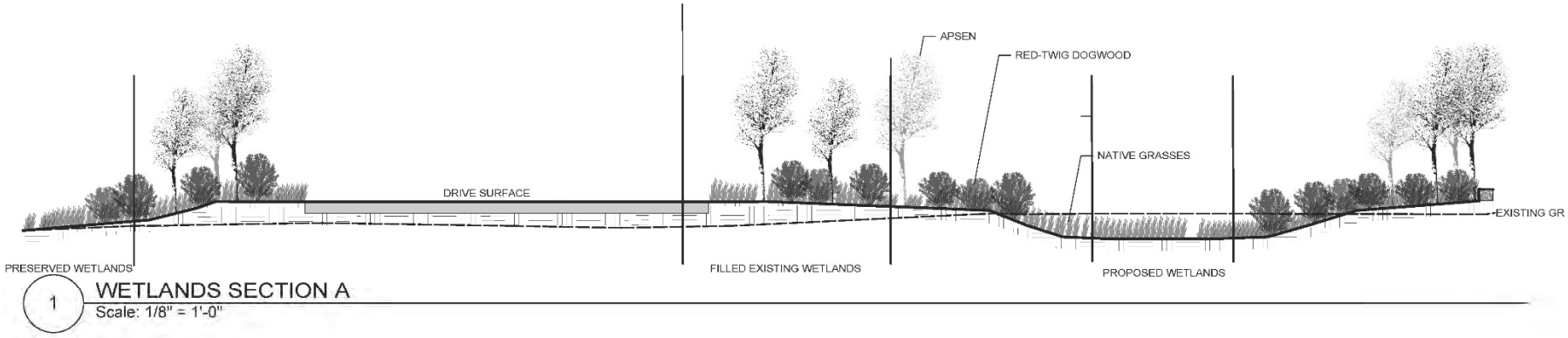


121 BADGER LANE, LLC
Rocking Horse Ranch Subdivision, No. 2, Parcel 4, 121 Badger Lane
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

SITE PLAN MAP

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - WETLAND CROSS SECTION A

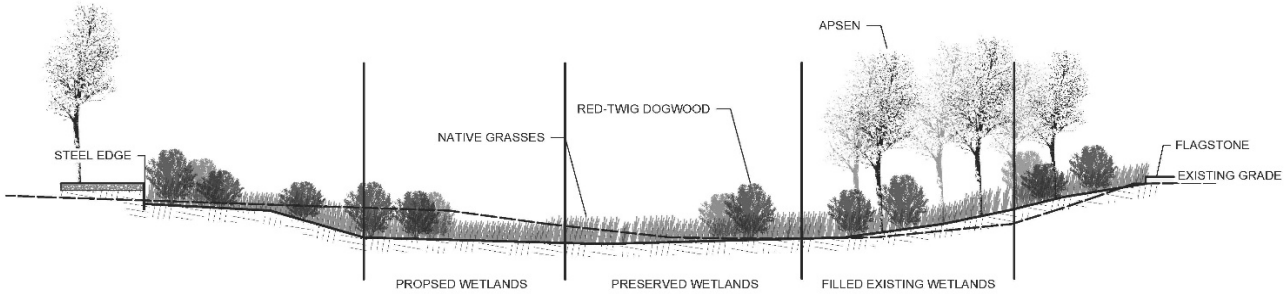
WETLANDS SECTION



121 BADGER LANE, LLC
Rocking Horse Ranch Subdivision, No. 2, Parcel 4, 121 Badger Lane
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - WETLAND CROSS SECTION B

WETLANDS SECTION



2 WETLANDS SECTION B
Scale: 1/8" = 1'-0"

121 BADGER LANE, LLC
Rocking Horse Ranch Subdivision, No. 2, Parcel 4, 121 Badger Lane
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - PHOTO EXHIBIT

PHOTO 1 - 121 BADGER LANE. Identified wetland resources and associated site characteristics in vicinity of the proposed driveway alignment within northwest portion of subject parcel [Cross-Section A]. Proposed area of wetland impact. Photo taken from the proposed driveway looking

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - PHOTO EXHIBIT

PHOTO 2 - 121 BADGER LANE. Identified wetland resources and associated site characteristics in vicinity of Sample Point 1 [SP-1] [Cross-Section B]. Proposed area of wetland impact. Photo taken from the existing driveway looking south [SSE] (May 25, 2022).

121 BADGER LANE, LLC
Rocking Horse Ranch Subdivision, No. 2, Parcel 4, 121 Badger Lane
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

121 BADGER LANE, LLC
ROCKING HORSE RANCH SUBDIVISION NO. 2, PARCEL 4 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - ADJOINING LANDOWNERS

121 BADGER LANE, LLC
Rocking Horse Ranch Subdivision, No. 2, Parcel 4, 121 Badger Lane
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

ADJOINING LANDOWNER MAP

NATIONWIDE PERMIT 29

Residential Developments:

Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. This NWP authorizes the construction of building foundations and building pads and attendant features that are necessary for the use of the residence or residential development. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development).

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Subdivisions: For residential subdivisions, the aggregate total loss of waters of United States authorized by this NWP cannot exceed 1/2-acre. This includes any loss of waters of the United States associated with development of individual subdivision lots.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

WATER QUALITY CERTIFICATION, NWP 29:

Agency responsible for administration of water quality, based on project location is listed below. If DENIED, then an Individual Water Quality Certification or Waiver of Certification is required, prior to the commencement of any work activities and/or issuance of a DA verification, authorization and/or permit.

State of Idaho: **PARTIALLY DENIED**;
Activities Denied Certification:
- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in a loss in excess of ½ acre of jurisdictional wetlands

Coeur d'Alene Tribal Lands: **DENIED**

Shoshone-Bannock Tribal Lands: **DENIED**

U.S. Environmental Protection Agency for all other Tribal Lands: **DENIED**

2021 Nationwide Permits
Regional Conditions
Walla Walla District Regulatory Division (State of Idaho)

March 15, 2021

The following Nationwide Permit (NWP) regional conditions are required in the state of Idaho and apply to all 2021 NWPs[1]. Regional conditions are established by individual Corps Districts to ensure projects result in no more than minimal adverse impacts to the aquatic environment and to address local resources concerns. This document also includes regional additions to the NWP General Conditions, notification procedures pertaining to certain NWP's, and regional additions to the definitions.

REGIONAL CONDITIONS

A. Watersheds Requiring Pre-Construction Notification, Specific to Anadromous Fish

This Regional Condition applies to all 2021 NWPs.

- Pre-construction notification (PCN) will be required for the above listed nationwide permits in the geographic area as shown on Figure 1: *Watersheds Requiring Pre-Construction Notification*, dated January 6, 2021.

B. Vegetation Preservation and Replanting

- To avoid impacts to aquatic habitat and to reduce sedimentation and erosion, permittee shall avoid and minimize the removal of vegetation in waters of the U.S. to the maximum extent practicable. Areas subject to temporary vegetation removal in waters of the U.S. during construction shall be replanted with appropriate native[2] species by the end of the first growing season, unless conditioned otherwise. Permittee shall avoid introducing or spreading noxious or invasive plants[3].

- Replanted vegetation that does not survive the first growing season shall be replanted before the end of the next growing season. Re-plantings shall continue to occur until desired vegetation densities are achieved. Re-vegetation densities should be based on reference conditions.

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[1] For the list of 2017 Nationwide Permits please see: https://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/

[2] Idaho Department of Transportation, Native Plants for Idaho Roadside Restoration and Revegetation Programs: https://itd.idaho.gov/wp-content/uploads/2016/06/RP171Roadside_Revegetation.pdf

[3] U.S. Department of Agriculture, Natural Resource Conservation Service Plant Database of introduced, invasive, and noxious plants for Idaho: https://plants.usda.gov/java/noxious?rptType=State&statefips=16.

C. De-watering & Re-watering (as applicable)

- Cofferdams shall be constructed of non-erosive material such as concrete jersey barriers, bulk bags, water bladders, sheet pile, and other similar non-erosive devices. Cofferdams may not be constructed by using mechanized equipment to push streambed material through flowing water.

- Diversion channels constructed to bypass flow around the construction site shall be lined with plastic, large rock, pipe or otherwise protected from erosion prior to releasing flows into or through the diversion channel.

- Water removed from within the coffered area shall be pumped to a sediment basin or otherwise treated to remove suspended sediments prior to its return to the waterway.

- To prevent unwanted passage of state or federally-protected fish, if present, from the coffered area, Water pipe intakes shall be screened with openings measuring < 3/32 inch to prevent entrainment of fish trapped in the coffered area.

- Should fish be present within the coffered areas contact your local Idaho Department of Fish and Game (IDFG) office prior to performing fish removal or salvage. Fish shall be collected by electrofishing, seining or dip net, or otherwise removed and returned to the waterway upstream of the project area. If electrofishing is used, the National Marine Fisheries Service (NMFS) guidelines for electrofishing should be followed[4], unless conditioned otherwise.

- Stream channels that have been dewatered during project construction shall be re-watered slowly to avoid lateral and vertical erosion of the de-watered channel, prevent damage to recently reclaimed work areas and/or damage to permitted work.

- Temporary stockpiles in waters of the United States shall be removed in their entirety so as not to form a berm or levee parallel to the stream that could confine flows or restrict overbank flow to the floodplain.

D. In-Water Structures and Complexes

- PCN notification in accordance with General Condition 32 is required for all non-federal applicants with activities involving gabion baskets placed below the ordinary high water mark.
- Stream meanders, riffle and pool complexes, pool stream structures, rock/log barbs, rock J-hooks, drop structures, sills, engineered log jams or similar structures/features when used shall be site specifically designed by an appropriate professional with experience in hydrology or fluvial geomorphology.

[4] Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act (June 2000) https://archive.fisheries.noaa.gov/wcr/publications/reference_documents/esa_refs/section4d/electro2000.pdf

E. Temporary Sidecasting

- Materials from exploratory trenching and installation of utility lines may be temporarily side cast into a de-watered coffered area for up to 30 days but not within flowing waters. Material from exploratory trenching and installation of utility lines in wetlands may be temporarily side cast for up to 30 days.

F. Suitability of Sediments for Open Water Disposal and us as Fill

- Sampling for determination of suitability of sediments for open water disposal or for use as fill, must comply with the Sediment Evaluation Framework for the Pacific Northwest (SEF)[5].

G. Avoidance and Minimization

- In addition to information required under General Condition 32(b), the applicant shall include information about previous discharges of fill material into waters of the United States within the project area. This is only for non-federal applicants where a PCN is required.

- Discharges of dredged or fill material into waters of the U.S., including wetlands, to meet set back requirements are not authorized under NWP.

H. Erosion Control

- Erosion control blanket or fabric used in or adjacent to waters of the U.S. shall be comprised of biodegradable material, to ensure decomposition and reduced risk to fish, wildlife and public safety, unless conditioned otherwise. If the applicant proposes to use materials other than as indicated above they must demonstrate how the use of such materials will not cause harm to fish, wildlife and public safety.

I. Reporting Requirement for Federal Permittees

- Federal Agencies with projects that require compensatory mitigation for loss of waters of the U.S. and who propose to purchase credits from an approved wetland and/or stream mitigation bank must provide proof of purchase within 30 days of when the credits were purchased. Purchase of credits from an approved mitigation bank must be IAW the Mitigation Banking Instrument of Record.

[5] Northwest Regional Sediment Evaluation Team (RSET) 2016. Sediment Evaluation Framework for the Pacific Northwest. Prepared by the RSET Agencies, July 2016, 160 pp plus appendices. http://nwd.usace.army.mil/Missions/Civil-Works/Navigation/RSET/SEF

REGIONAL ADDITIONS TO THE GENERAL CONDITIONS

General Condition 4. Migratory Bird Breeding Areas. Regional Addition: For additional information please contact the US Fish and Wildlife Service at the following field office locations: State Office (Boise) at (208) 387-5243; Northern Idaho Field Office (Spokane) at (509) 891-6839; or the Eastern Idaho Field Office (Chubbuck) at (208) 237-6975. https://www.fws.gov/idaho/promo.cfm?id= 177175802

General Condition 6. Suitable Material. Regional Addition: Erosion control blanket or fabric used in or adjacent to waters of the U.S. shall be comprised of biodegradable material, to ensure decomposition and reduced risk to fish, wildlife and public safety, unless conditioned otherwise. If the applicant proposes to use materials other than as indicated above they must demonstrate how the use of such materials will not cause harm to fish, wildlife and public safety.

General Condition 9. Management of Water Flows. Regional Addition: To obtain information on State of Idaho definition of high water refer to Idaho Department of Water Resources (IDAPA 37.03.07. Rule 62.03.04.a). For culverts or bridges located in a community qualifying for the national flood insurance program, the minimum size culvert shall accommodate the 100-year flood design flow frequency (IDAPA 37.03.07. Rule 62.03.04.c).

General Condition 12. Soil Erosion and Sediment Controls. Regional Addition: For additional information refer to the Idaho Department of Environmental Quality Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, available online at: https://www.deq.idaho.gov/public-information/laws-guidance-and-orders/guidance/.

General Condition 18. Endangered Species. Regional Addition: For additional information on ESA listed species in north Idaho please contact the US Fish and Wildlife Service (USFWS) Northern Idaho Field Office (Spokane) at (509) 893-8009, for all other counties in Idaho contact the USFWS State Office (Boise) at (208) 378-5388.

General Condition 20. Historic Properties. Regional Addition: Property is generally considered “historic” if it is at least 50 years old, and is not limited to buildings. For additional information on the potential for cultural resources in proximity to the project site, contact the Idaho State Historic Preservation Office at (208) 334-3847 located in Boise, Idaho.

NOTIFICATION PROCEDURES BY THE CORPS FOR CERTAIN NATIONWIDE PERMITS

Waivers: For nationwide permits with a waiver provision, District coordination with Idaho Department of Environmental Quality (IDEQ) and Environmental Protection Agency (tribal lands) will be conducted prior to the District Engineer making a waiver determination to ensure the proposed activity is in compliance with Section 401 Water Quality Standards.

Select Waters and Wetlands: The Corps will coordinate with the Idaho Department of Fish and Game (IDFG) for activities in the following waters and wetlands that require notification and are authorized by NWP:

- Waters: Anadromous waters as shown on Figure 1: *Watersheds Requiring Pre-Construction Notification*, dated January 6, 2021; Henry's Fork of the Snake River and its tributaries; South Fork Snake River and its tributaries; Big Lost River and its tributaries upstream of the US 93 crossing; Beaver, Camas, and Medicine Lodge Creeks; Snake River; Blackfoot River above Blackfoot Reservoir; Portneuf River; Bear River; Boise River including South Fork, North Fork and Middle Fork; Payette River including South Fork, North Fork and Middle Fork; Coeur d'Alene River, including the North Fork; St. Joe River; Priest River; Kootenai River; Big Wood River; and Silver Creek and its tributaries.

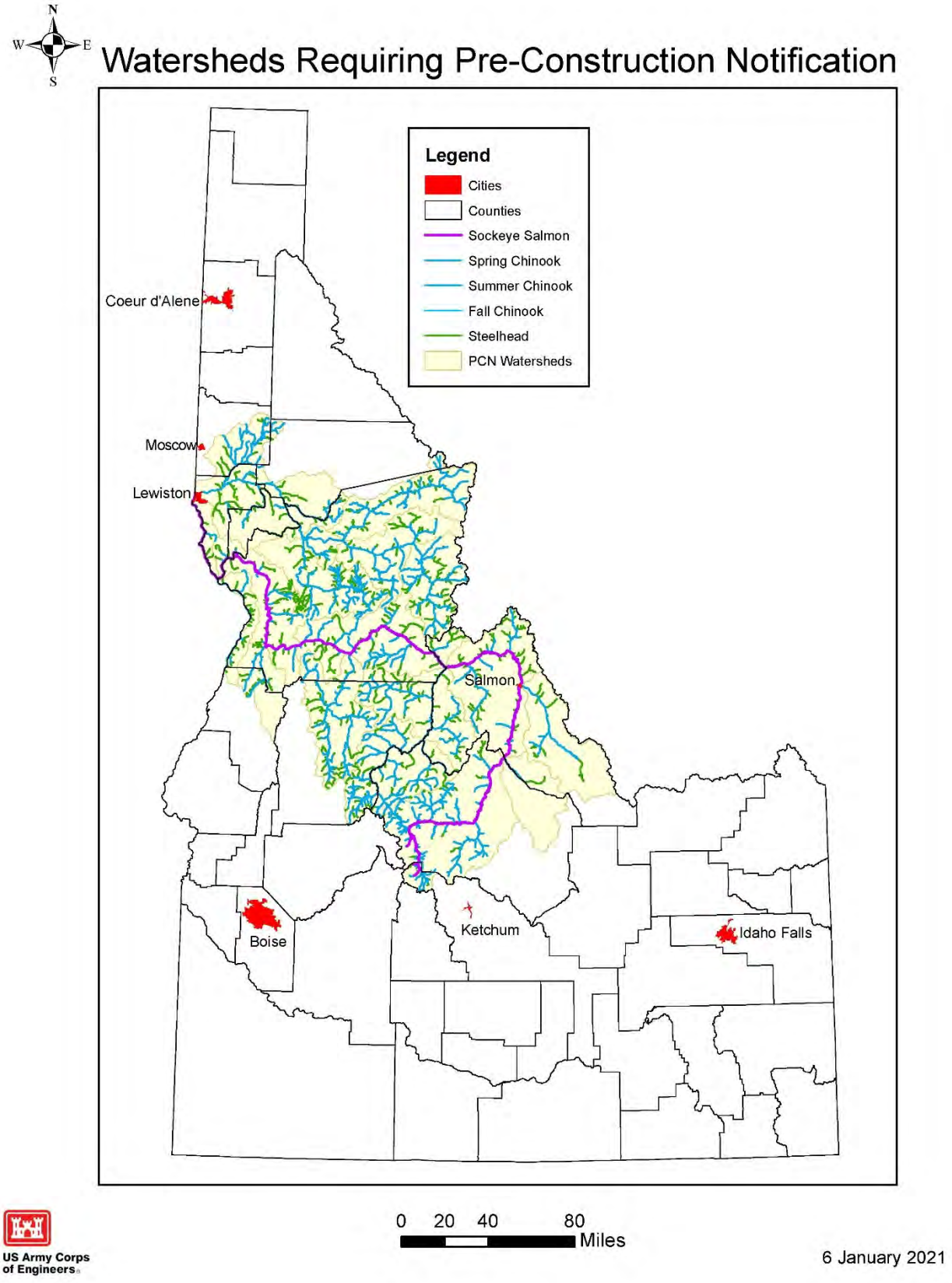
- Wetlands identified in Idaho Department of Fish and Game, Wetland Conservation Strategy as Class I, Class II and Reference Habitat Sites[6].

- Wetlands identified in the Idaho Wetland Conservation Prioritization Plan-2012[7].

[6] Idaho Department of Fish and Game (IDFG) Wetland Conservation Strategies have been developed for the Henrys Fork Basin, Northern Idaho, Big Wood River, Southeast Idaho, East-Central Idaho and Spokane River Basin, Middle and Western Snake River and tributaries, and the Upper Snake River–Portneuf Drainage, Weiser River Basin, and West Central Mountain Valleys and adjacent wetlands. Closed basins of Beaver-Camas Creeks, Medicine Lodge Creek, Palouse River and lower Clearwater River sub-basins, Middle Fork and South Fork Clearwater Basins and Camas Prairie in northern Idaho. Refer to the internet site at: http://fishandgame.idaho.gov/content/page/wetlands-publications-idaho-natural-heritage-program#reports

[7] Murphy, C., J. Miller and A. Schmidt. 2012. https://idfg.idaho.gov/species/bibliography/project/wetlands

Figure 1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W
E
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Watersheds Requiring Pre-Construction Notification
Legend
Cities
Counties
Sockeye Salmon
Spring Chinook
Summer Chinook
Fall Chinook
Steelhead
PCN Watersheds
Coeur d'Alene
Moscow
Lewiston
Salmon
Boise
Ketchum
Idaho Falls
0 20 40 80
Miles
US Army Corps of Engineers
6 January 2021

2021 Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas

Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds

No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material

No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes

No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments

If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows
To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains
The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment
Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls
Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills
Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance
Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project
The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers
(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency

with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights

No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be

affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take'' means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at

http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles

The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties

(a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)).

Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts

Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters

Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment,

additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. <u>Mitigation</u>

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of

streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14)

must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. <u>Safety of Impoundment Structures</u>

To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have

been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality

(a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management.

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions

The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits

The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated

bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1⁄3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

_____

(Transferee)

_____

_____

(Date)

30. Compliance Certification

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory

mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States

If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification

(a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining

why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatenedspecies (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii)

NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

Appendix G.1

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

December 4, 2020

Kelly J. Urbanek, Chief
U.S. ACOE Regulatory Division
Walla Walla District
720 East Park Boulevard, Suite 245
Boise, Idaho 83712-7757

Subject: Final §401 Water Quality Certification for 2020 Nationwide Permits in Idaho

Dear Ms. Urbanek:

Enclosed please find the Idaho Department of Environmental Quality (DEQ) final water quality certification for the 2020 Nationwide Permits in Idaho. DEQ offered a 21-day public comment period, beginning on November 2, 2020, and ending on November 23, 2020.

DEQ received a single comment letter. After review of the comments received, minor modifications were made to the final certification in order to provide additional clarity.

If you have any questions or concerns regarding this certification, please contact Jason Pappani at (208) 373-0515 or via email at jason.pappani@deq.idaho.gov.

Sincerely,

Mary Anne Nelson, PhD
Surface and Wastewater Division Administrator

MAN:JP:lf

cc: Jason Pappani, DEQ State Office
DEQ Regional Administrators
James Joyner, ACOE Walla Walla District
Brent King, Idaho Attorney General's Office

Idaho Department of Environmental Quality

Final §401 Water Quality Certification

December 4, 2020

2020 U.S. Army Corps of Engineers §404 Nationwide Permits (NWPs)

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon its review of the proposed 2020 Nationwide Permits published in the Federal Register on September 15, 2020, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permits, including the Regional Conditions set forth by the Army Corps of Engineers (ACOE), along with the conditions set forth in this water quality certification, then activities will comply with the applicable water quality requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

1 Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

1.1 Pollutants of Concern

The primary pollutant of concern, for projects permitted under the 2020 NWPs administered by the ACOE, is sediment. In locations where heavy metals are present due to mining activities, or where high concentrations of nutrients may be associated with sediments, additional considerations may be necessary. If the project reduces riparian vegetation, then temperature (thermal loading) may also be of concern.

The procedures outlined in the Sediment Evaluation Framework for the Pacific Northwest[1] may be applied to assess and characterize sediment to determine the suitability of dredged material for unconfined aquatic placement, to determine the suitability of post dredge surfaces, and to predict effects on water quality during dredging (See Section 2.4 for more details).

As part of the Section 401 water quality certification, DEQ is requiring the applicant to comply with various conditions to protect water quality and to meet Idaho WQS, including the criteria applicable to sediment.

1.2 Receiving Water Body Level of Protection

The ACOE NWPs authorize construction activities in waters of the United States. In Idaho, jurisdictional waters of the state can potentially receive discharges either directly or indirectly from activities authorized under the NWPs. DEQ applies a water body by water body approach to determine the level of antidegradation protection a water body will receive. (IDAPA 58.01.02.052.05).

All waters in Idaho that receive discharges from activities authorized under a NWP will receive, at minimum, Tier I antidegradation protection because Idaho's Tier I antidegradation policy applies to all state waters (IDAPA 58.01.02.052.01). Water bodies that fully support their aquatic life or recreational uses are considered *high quality waters* and will receive Tier II antidegradation protection (IDAPA 58.01.02.051.02). Because of the statewide applicability, the antidegradation review will assess whether the NWP permit complies with both Tier I and Tier II antidegradation provisions (IDAPA 58.01.02.052.03).

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs), it is possible for a water body to be designated as an ORW during the life of the NWPs.

[1] Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest. *Prepared by* the RSET Agencies, May 2018, 183 pp plus appendices.

Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy (IDAPA 58.01.02.051.03).

To determine the support status of the receiving water body, the most recent EPA-approved Integrated Report, available on Idaho DEQ's website, is to be used: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/. (IDAPA 58.01.02.052.05).

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case by case determination to be made by DEQ based on available information at the time of the application for permit coverage (IDAPA 58.01.02.052.05.b). For activities occurring on unassessed waters under this certification, DEQ has determined that complying with the conditions of the NWP, the regional conditions, and this certification will ensure the provisions of IDAPA 58.01.02.052 are met.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired", for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a healthy, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.
Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, please feel free to contact your nearest DEQ regional office or the State Office (Table 1).

Table 1. Idaho DEQ Regional and State Office Contacts

Regional Office	*Address*	*Phone Number*	*Email*
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	chantilly.higbee@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	sujata.connell@deq.idaho.gov
Pocatello	444 Hospital Way, #300 Pocatello 83201	208-236-6160	matthew.schenk@deq.idaho.gov
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls 83301	208-736-2190	balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	jason.pappani@deq.idaho.gov

1.3 Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected (IDAPA 58.01.02.051.01; 052.01 and 04). The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment (IDAPA 58.01.02.055.02). Once a TMDL is completed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the completion of a TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect beneficial uses (IDAPA 58.01.02.055.04).

The general (non-numeric) effluent limitations in the NWPs and associated Regional Conditions for the ACOE Walla Walla District address best management practices (BMPs) aimed at minimizing impacts to the aquatic environment, especially sediment and turbidity impacts including: vegetation protection and restoration, de-watering requirements, erosion and sediment controls, soil stabilization requirements, pollution prevention measures, prohibited discharges, and wildlife considerations. Although the NWPs do not contain specific (numeric) effluent limitations for sediment or turbidity, the conditions identified in the permits and in this water quality certification will ensure compliance with DEQ's water quality standards, including the narrative sediment criteria (IDAPA 58.01.02.200.08) and DEQ's turbidity criteria (IDAPA 58.01.02.250.02.e).

In order to ensure compliance with Idaho WQS, DEQ has included a condition requiring the permittee(s) to comply with Idaho's numeric turbidity criteria, developed to protect aquatic life

uses. The criterion states, "Turbidity shall not exceed background turbidity by more than 50 nephelometric turbidity units (NTU)[2] instantaneously or more than 25 NTU for more than 10 consecutive days" (IDAPA 58.01.02.250.02.e). DEQ is requiring turbidity monitoring when project activities result in a discharge to waters of the United States that causes a visible sediment plume (IDAPA 58.01.02.054.01) (See Section 2.5 for more details).

If an approved TMDL exists for a receiving water body that requires a load reduction for a pollutant of concern, then the project must be consistent with the provisions of that TMDL (IDAPA 58.01.02.055.05).
For authorized activities requiring a pre-construction notification (PCN), the Corps will have the opportunity to evaluate the NWP activities on a case by case basis to ensure that the activity will not cause more than a minimal adverse environmental effect, individually and cumulatively. The Corps has agreed to forward the verification letters to the appropriate DEQ regional office (Table 1) for all authorized activities including the NWP activities that require a PCN. This will better inform DEQ of the authorized activities that are occurring throughout the state and determine if additional conditions will need to be implemented when the ACOE reissues the NWPs.

1.3.1 DEQ's Determination

DEQ concludes that, given the nature of the activities authorized by the 2020 NWPs, such activities will comply with Idaho's Tier I requirements under IDAPA 58.01.02.051.01 and 58.01.02.052.07, provided the permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions set forth in this water quality certification.

1.4 Protection of High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high-quality waters and will be provided Tier II protection in addition to Tier I protection (IDAPA 58.01.02.051.02; 58.01.02.052.05.a). Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

The ACOE does not authorize projects with more than minimal individual and cumulative impacts on the aquatic environment under a NWP (33 U.S.C.A. § 1344(e)). As required by the National Environmental Policy Act (NEPA) the Corps has analyzed the individual and cumulative effects for the NWP activities. DEQ recognizes that short term changes in water quality may occur with respect to sediment as a result of the authorized activities, but has determined that adherence to the terms and conditions imposed by the permits, including the Regional Conditions set forth by the Army Corps of Engineers (ACOE or Corps), along with the conditions set forth in this water quality certification will ensure that there are no long-term adverse changes to water quality or beneficial use support as a result of any activity authorized under this certification (IDAPA 58.01.02.052.03). As a general principle, DEQ believes degradation of water quality should be viewed in terms of permanent or long-term adverse

[2] *NTU is a unit of measure of the concentration of suspended particles in the water (turbidity). It is determined by shining a light through a sample and measuring the incident light scattered at right angles from the sample.*

changes. Short-term or temporary reductions in water quality, if reasonable measures are taken to minimize them (such as the certification conditions in Section 2), may occur without triggering a Tier II analysis (IDAPA 58.01.02.052.03; 080.02).

To ensure proposed regulated activities will not cause more than minimal individual and cumulative impacts on the aquatic environment, certain NWPs require project proponents to notify district engineers (in the form of a PCN) of their proposed activities prior to conducting regulated activities. This level of review gives the district engineer the opportunity to evaluate activities on a case by case basis to determine whether additional conditions or mitigation requirements are warranted to ensure that the proposed activity results in no more than the minimal individual and cumulative impacts on the aquatic environment.

DEQ has denied certification for NWP 16, NWP 23, and NWP 53 (see Section 3.1); and for certain activities associated with NWP 3, NWP 12, NWP 13, NWP 14, NWP 21, NWP 29, NWP 39, NWP 40, NWP 42, NWP 43, NWP 44, NWP 50, NWP 51, NWP 52, NWP C, NWP D, and NWP E (see Section 3.2). Projects seeking coverage under these NWPs will need to request individual certification from DEQ. DEQ will consider any additional conditions or denial of certification if necessary to ensure no lowering of water quality occurs for any of these projects proposed on Tier II water.

Additionally, if an authorized project causes a visible sediment plume then turbidity monitoring is required (see Section 2.5 for more details).

1.4.1 DEQ's Determination

DEQ concludes that the activities authorized by the 2020 NWPs and this certification will comply with Idaho's Tier II requirements under IDAPA 58.01.02.051.02 and 58.01.02.052.08 providing permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions of this water quality certification.

1.5 Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). No water bodies in Idaho have been designated as ORWs to date. Because it is possible waters may become designated during the term of the 2020 NWPs, DEQ has evaluated whether the NWPs comply with the ORW antidegradation provision.

DEQ has denied certification for any activities on any Outstanding Resource Water (ORW) (see Section 3) and is requiring that any activities proposed on an ORW apply for individual certification (see Section 2.3).

1.5.1 DEQ's Determination

DEQ concludes that the activities authorized by the 2020 NWPs and this certification will comply with Idaho's Tier III requirements under IDAPA 58.01.02.051.03 providing permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions of this water quality certification.

2 Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

For all activities covered under this certification, the following conditions are necessary to ensure that permitted projects comply with water quality requirements.

2.1 Design, Implementation, and Maintenance of Appropriate Best Management Practices

Best Management Practices (BMPs) must be designed, implemented, and maintained by the permittee to fully protect and maintain the beneficial uses and ambient water quality of waters of the state and to prevent exceedances of WQS (IDAPA 58.01.02.350.01.a).

BMPs must be selected and properly installed. Proper installation and operation of BMPs are required to ensure the provisions of IDAPA 58.01.02.052 are met. In order to ensure that BMPs are operating properly and to demonstrate that degradation has not occurred, the permittee must monitor and evaluate BMP effectiveness daily during project activities to assure that water quality standards are being met.

Approved BMPs for specific activities (mining, forestry, stream channel alteration, etc.) are codified in IDAPA 58.01.02.350. Additionally, DEQ provides a catalog of storm water best management practices, available at: http://www.deq.idaho.gov/media/60184297/stormwater-bmp-catalog.pdf. This catalog presents a variety of BMPs that can be used to control erosion and sediment during and after construction. Other sources of information are also available and may be used for selecting project appropriate BMPs.

This condition is necessary meet the following water quality requirements:

Control of erosion, sediment, and turbidity to maintain beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)
- Point source wastewater treatment requirements (IDAPA 58.01.02.401.02)

2.2 TMDL Compliance

If there is an approved or established TMDL, then the permittee must comply with the established loads in the TMDL. Approved TMDLs can be found on DEQ's website (https://www.deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls/) or by contacting the appropriate regional office contact (Table 1).

This condition is necessary to meet the following water quality requirements:

Ensure projects are consistent with waste load and load allocations established in approved TMDLs (IDAPA 58.01.02.055.04 and .05).

2.3 Outstanding Resource Waters

If waters become designated as ORWs during the term of the NWPs, a permittee proposing a project on an ORW must contact the appropriate DEQ regional office and apply for individual certification.

This condition is necessary to meet the following water quality requirements:

Ensure there is no lowering of water quality in any ORW as required by the Idaho Antidegradation Policy (IDAPA 58.01.02.051.03).

2.4 Fill Material

Material subject to suspension, including suspended dredge material, shall be free of easily suspended fine material. The fill material to be placed in waters of the United States shall be clean material only. If dredged material is proposed to be used as fill material and there is a possibility the material may be contaminated, then the permittee must apply the procedures in the *Sediment Evaluation Framework for the Pacific Northwest* (RSET, 2018) to assess and characterize sediment to determine the suitability of dredged material for unconfined-aquatic placement; determine the suitability of post dredge surfaces; and to predict effects on water quality during dredging.

This condition is necessary to meet the following water quality requirements:

Prevent suspension of fine sediment and turbidity in order to provide beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)
- Point source wastewater treatment requirements (IDAPA 58.01.02.401.02)

Prevent suspension of hazardous, toxic, or deleterious materials or other pollutants that may be associated with fill material in order to ensure beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for hazardous materials (IDAPA 58.01.02.200.01), toxic substances (IDAPA 58.01.02.200.02), deleterious materials (IDAPA 58.01.02.200.03), excess nutrients (IDAPA 58.01.02.200.06), or oxygen demanding materials (IDAPA 58.01.02.200.09)
- Numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210)

2.5 Turbidity

If no visible sediment plume is present, it is reasonable to assume that there is no potential violation of the water quality criteria for turbidity (IDAPA 58.01.02.250.02.e). Therefore, turbidity monitoring is only required when activities cause a visible sediment plume.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field, but grab samples may be collected and taken to a laboratory for analysis. When monitoring is required a sample must be taken at an undisturbed area immediately up-current from in-water disturbance or discharge to establish background turbidity levels. Background turbidity, latitude/longitude, date, and time must be recorded prior to monitoring down-current. Then a sample must be collected immediately down-current from the in-water disturbance or point of discharge and within any visible sediment plume. The turbidity, latitude/longitude, date, and time must be recorded for each sample. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the down-current sampling point must be compared to the up-current or background level to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more greater than the upstream turbidity, then the project is causing an exceedance of the WQS (IDAPA 58.01.02.250.02.e).
Any exceedance of the turbidity standard must be reported to the appropriate DEQ regional office (Table 1) within 24 hours.

The following steps should be followed to ensure compliance with the turbidity standard:

1. If a visible plume is observed, collect turbidity measurements at 1) an upstream location; and, 2) from within the plume, and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over background).
2. If turbidity in the plume is less than 50 NTU instantaneously over the background turbidity continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities immediately and proceed to Step 3. If turbidity exceeds background turbidity by more than 25 NTU, or if a visible plume is observed for more than 10 consecutive days, then stop all earth disturbing construction activities and proceed to Step 3.
3. Notify the appropriate DEQ regional office within 24 hours of any turbidity criteria exceedance. Take action to address the cause of the exceedance. That may include inspecting the condition of project BMPs. If the BMPs are functioning to their fullest capability, then the permittee must modify project activities and/or BMPs to correct the exceedance.
4. Earth disturbing activities may continue once turbidity readings return to within 50 NTU over background instantaneously; or, if turbidity has exceeded 25 NTU over background for more than ten consecutive days, once turbidity readings have no longer exceeded 25 NTU over background for at least 24 consecutive hours.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

This condition is necessary to meet the following water quality requirements:

Ensure that activities do not impair beneficial uses, and ensure and document compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)

2.6 Mixing Zones

No mixing zones are authorized through this certification. If a mixing zone, or alternatively, a point of compliance, is desired, the permittee must apply for an individual certification and must contact the appropriate DEQ regional office (Table 1) to request authorization for a mixing zone.

This condition is necessary to meet the following water quality requirements:

Ensure any mixing zone is properly authorized in accordance with the Idaho Mixing Zone Policy (IDAPA 58.01.02.060).

2.7 Culverts

To prevent road surface and culvert bedding material from entering a stream, culvert crossings must include best management practices to retain road base and culvert bedding material. For perennial waters, the permittee should consider the Idaho Stream Channel Alterations rules (IDAPA 37.03.07). Another source of BMPs for culvert installation can be found in the Idaho Forest Practices Act (IDAPA 20.20.01). Examples of best management practices include, but are not limited to: parapets, wing walls, inlet and outlet rock armoring, compaction, suitable bedding material, anti-seep barriers such as bentonite clay, or other acceptable roadway retention systems.

This condition is necessary to meet the following water quality requirements:

Control of erosion, sediment, and turbidity to provide beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)

2.8 Wood Preservatives

DEQ's *Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments* must be considered when using treated wood materials in the aquatic environment. Within this guidance document DEQ references the *Best Management Practices*

for the Use of Treated Wood in Aquatic and Wetland Environments[3]. This document provides recommended guidelines for the production and installation of treated wood products destined for use in sensitive environments.

This condition is necessary to meet the following water quality requirements:

Ensure that toxic chemicals are not introduced into waters and to ensure compliance with the following water quality standards:

- General Surface Water Criteria for hazardous materials (IDAPA 58.01.02.200.01), toxic substances (IDAPA 58.01.02.200.02), and deleterious materials (IDAPA 58.01.02.200.03)
- Numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210)

2.9 Reporting of Discharges Containing Hazardous Materials or Deleterious Materials

All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in Table 2 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

Table 2. Idaho DEQ regional contacts for reporting discharge or spill of hazardous or deleterious materials.

Regional Office	*Toll Free Phone Number*	*Phone Number*
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	877-541-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

[3] Western Wood Preservers Institute, Wood Preservation Canada, Southern Pressure Treaters' Association, and Southern Forest Products Association. 2011. "Best Management Practices: For the Use of Treated Wood in Aquatic and Wetland Environments" Vancouver, WA: Western Wood Preservers Institute.

This condition is necessary to meet the following water quality requirements:

Ensure compliance with the following water quality standards:

- Hazardous Material Spills (IDAPA 58.01.02.850)
- Petroleum release reporting, investigation, and confirmation (IDAPA 58.01.02.851)
- Petroleum release response and corrective action (IDAPA 58.01.02.852)

2.10 Other Conditions

This certification is conditioned upon the requirement that if there are material modifications of the NWPs or the permitted activities—including without limitation, significant changes from the draft NWPs to final NWPs, or significant changes to the draft Regional Conditions, then DEQ must re-evaluate the certification to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

This condition is necessary to ensure that DEQ can evaluate any material modification to ensure it meets water quality requirements and complies with the Idaho antidegradation policy (IDAPA 58.01.02.051) and its implementation (IDAPA 58.01.02.052), general surface water quality criteria (200), numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210), numeric criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

3 Projects for Which Certification Is Denied

DEQ cannot certify that the following activities will comply with water quality requirements, including State WQS and other appropriate requirements of state law, and is therefore denying certification for the activities listed below.

For activities for which certification has been denied, the applicant will be required to request an individual certification before the activity can be conducted. Individual certification requests will provide DEQ with the opportunity to review project details and determine if additional conditions are necessary to ensure that water quality requirements will be met.

Upon review and evaluation of individual certification requests, DEQ may 1) certify without condition, 2) provide individual certification with conditions necessary to ensure water quality requirements will be met, or 3) deny certification for projects that will not meet water quality requirements.

3.1 NWPs denied

DEQ denies certification for all activities proposed to occur on waters designated as ORWs during the term of the permit. This denial is necessary to ensure compliance with the water quality requirements of Idaho's antidegradation policy (IDAPA 58.01.02.051.03) and implementation procedures (IDAPA 58.01.02.052.09.g).

In addition, the following NWPs are denied certification for all Idaho waters. Projects seeking coverage under these NWPs must request individual certification from DEQ.

NWP 16 - Return Water from Upland Contained Disposal Areas

Basis for denial:

Return water from upland disposal areas has the potential to contribute turbidity, sediment, and other toxic and non-toxic pollutants to receiving waters.

To ensure that discharge from upland contained disposal areas meets water quality requirements, DEQ must evaluate the quality of the return water and evaluate the potential pollutants associated with return water on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

NWP 23 - Approved Categorical Exclusions

Basis for denial:

DEQ is unable to determine that meeting the requirements for categorical exclusion under the National Environmental Policy Act will meet state water quality requirements.

DEQ will evaluate categorically excluded activities on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

NWP 53 – Removal of Low-Head Dams

Basis for denial:

Material released from the removal of low head dams has the potential to contribute turbidity, sediment, and other toxic and non-toxic pollutants to receiving waters.

In order to ensure that release of materials from the removal of low head dams meets water quality requirements, DEQ must evaluate the potential pollutants associated with this release on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

3.2 NWPs partially denied

The following activities have the potential to disturb significant areas and could disturb a significant fraction of entire Assessment Units, causing permanent and significant impairment of designated and existing beneficial uses. The conditions associated with the NWP, regional conditions, and the conditions associated with this certification are not sufficient to provide DEQ with assurance that projects of this magnitude would not result in impairment of existing or

designated beneficial uses in all waters, and potentially increase degradation in high quality (Tier II) waters.

In order to meet the requirements of Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052), ensure that beneficial uses are not impaired, and ensure compliance with general surface water quality criteria for sediment (IDAPA 58.01.02.200.08), DEQ must evaluate these projects on a case-by-case basis and provide individual certification where applicable.

3.2.1 NWPs 3, 13, and 14

The 2020 NWPs 3, 13, and 14 require preconstruction notification (PCN) for certain activities when it is necessary for the district engineer to review activities to ensure only minimal adverse environmental effects.

While the additional district engineer review is intended to ensure that activities will cause only minimal adverse environmental effects, it is not reasonable to expect that the district engineer review will consider the requirements of Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052) when making their determination. Consequently, DEQ cannot certify that activities requiring PCN under these NWPs would not cause degradation of water quality, and therefore cannot certify that these activities would meet Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052).

Therefore, DEQ is denying certification for the following activities that require PCN under the proposed 2020 NWPs:

NWP 3 – Maintenance

Activities Denied Certification

- Activities authorized by paragraph (b) of NWP 3

NWP 13 – Bank Stabilization

Activities Denied Certification:

- activities involving discharge into special aquatic sites;
- activities in excess of 500 linear feet;
- activities that involve discharge of greater than one cubic yard per running foot measured along the length of the treated bank below the plane of the ordinary high water mark

NWP 14 – Linear Transportation Projects

Activities Denied Certification:

- activities resulting in the loss of waters of the United States in excess of 1/10 acre;
- discharge in a special aquatic site, including wetlands

3.2.2 NWPs 12, C, and D

The 2017 NWP 12 included activities proposed to be permitted under the 2020 NWPs C and D.

The 2017 NWP 12 required PCN for activities that, among other thresholds, involved mechanized clearing in forested wetlands, exceeded 500 linear feet, or that resulted in loss of greater than 1/10 acre of waters of the United States. The 2020 NWP proposes removal of these thresholds for PCN, and does not require additional review from the ACOE district engineer to ensure only minimal adverse environmental effects.

Without the requirement for PCN and additional review from the district engineer, DEQ cannot certify that these activities will not result in degradation. Therefore, DEQ is denying certification for the following activities:

NWP 12 – Oil or Natural Gas Pipeline Activities

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- oil or natural gas pipelines in waters of the United States that exceed 500 linear feet or that run adjacent to a water body for greater than 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

NWP C – Electric Utility Line and Telecommunications Activities

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- electric utility line and telecommunications activities in waters of the United States that exceed 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

NWP D – Utility Line Activities for Water and Other Substances

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- utility line activities in waters of the United States that exceed 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

3.2.3 NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, 52, and E

The 2017 NWPs for the following activities had a 300 linear foot limit for losses of stream bed. The 2020 NWP proposes removal of the 300 linear foot limit for losses of stream bed and instead rely solely on the ½ acre limit.

The median bankfull width measured from 48 wadeable streams monitored in 2010 as part of DEQ's Beneficial Use reconnaissance Program (BURP) was 19.7 feet. A loss of ½ acre at this stream width would correspond to 1,105 linear feet of loss, or the equivalent of 0.2 miles of stream. DEQ cannot certify that losses of this magnitude of stream bed, or that losses of stream

bed based solely on the ½ acre limit, would not result in permanent degradation. Therefore, DEQ is denying certification for the following activities that exceed the 300 linear foot limit previously imposed by the 2017 NWP:

NWP 21 – Surface Coal Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 29 – Residential Developments

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 39 – Commercial and Institutional Developments

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 40 – Agricultural Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 42 – Recreational Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 43 – Stormwater Management Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 44 – Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 50 – Underground Coal Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 51 – Land Based Renewable Energy Generation Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 52 – Water-Based Renewable Energy Generation Pilot Projects

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP E – Water Reclamation and Reuse Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

4 Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Jason Pappani, State Office IDEQ, at (208) 373-0515 or via email at jason.pappani@deq.idaho.gov.

Mary Anne Nelson, PhD
Surface and Wastewater Division
Administrator

Table 2. Updated hyperlinks.

Section	Hyperlink
1.2	*Integrated Report*
1.2	*Final 2022 Integrated Report Interactive Mapper*
2.1	*Catalog of Storm Water Best Management Practices*
2.2	*Approved TMDLs*
2.8	*Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments*
2.8	*Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments*

Please direct questions or comments about the actions taken in the 2020 Final § 401 Water Quality Certification to Tambra Phares, State Office DEQ, (208) 373-0187, or email at *tambra.phares@deq.idaho.gov*.

APPROVAL: _____ 01/10/2023

Mary Anne Nelson, PhD — Date
Department of Environmental Quality
Surface and Wastewater Division Administrator

Appendix G.1

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

MEMORANDUM

TO: James Joyner, Chief, Upper Snake and Idaho Panhandle Branch, U.S. Army Corps of Engineers

FROM: Mary Anne Nelson, Surface and Wastewater Division Administrator of the Department of Environmental Quality

DATE: 01/10/23

SUBJECT: 2020 Final § 401 Water Quality Certification Contact and Hyperlink Updates

The Department of Environmental Quality (DEQ) is submitting an update for agency contacts and hyperlinks to be included as an attachment to the § 401 Water Quality Certification dated December 4, 2020, upon authorization of a federal permit or license.

Table 1. DEQ state and regional office contacts.

Regional Office	Address	Phone Number	Email
Boise	1445 N. Orchard St., Boise, ID 83706	(208) 373-0490	*chase.cusack@deq.idaho.gov*
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene, ID 83814	(208) 666-4605	*chantilly.higbee@deq.idaho.gov*
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls, ID 83402	(208) 528-2679	*alex.bell@deq.idaho.gov*
Lewiston	1118 "F" St., Lewiston, ID 83501	(208) 799-4874	*sujata.connell@deq.idaho.gov*
Pocatello	444 Hospital Way, #300 Pocatello, ID 83201	(208) 239-5007	*matthew.schenk@deq.idaho.gov*
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls, ID 83301	(208) 737-3877	*sean.woodhead@deq.idaho.gov*
State Office	1410 N. Hilton St., Boise, ID 83706	(208) 373-0570	*tambra.phares@deq.idaho.gov*

2/14/2023 10:43:37 AM

121 BADGER LANE

FLOODPLAIN DEVELOPMENT PERMIT SUBMITTAL - 02.27.2023

SHEET INDEX

SUPPORTING DOCUMENTS:

- FLOODPLAIN PERMIT APPLICATION AND CHECKLIST
- NARRATIVE DOCUMENT (RESPONSES TO CRITERIA) + TECHNICAL NARRATIVE AND HYDRAULIC ANALYSIS

- APPENDIX A: APPROVED LOMA 14-10-1180A
- APPENDIX B: HEC RAS CROSS SECTIONS AND DATA
- APPENDIX C: CUT AND FILL CALCULATIONS
- APPENDIX D: FIRE ACCESS ROAD EASEMENT (FIRE DEPARTMENT APPROVAL)
- APPENDIX D.1: FIRE ACCESS RECORDED EASEMENT AGREEMENT
- APPENDIX E: FIRE APPARATUS TURNAROUND DIAGRAM
- APPENDIX F: FEMA ELEVATION CERTIFICATE
- APPENDIX G: JOINT APPLICATION TO USACE
- APPENDIX G.1: PERMIT AUTHORIZATION FROM USACE

PROJECT DESCRIPTION

SINGLE FAMILY RESIDENCE:
MAIN HOUSE DWELLING WITH IN-GROUND SPA; ACCESSORY DWELLING UNIT WITH IN-GROUND POOL AND SPA.

SCOPE OF WORK INCLUDES:
NEW CONSTRUCTION OF FOUNDATION, STRUCTURAL, CIVIL, LANDSCAPING, AND HARDSCAPING.

PROJECT ADDRESS

121 BADGER LANE
KETCHUM, ID 83340

LEGAL DESCRIPTION

PARCEL 4, ROCKING RANCH SUB #2 (LOCATED WITHIN SECTION 13, T.4 N., R.17 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO)

PROJECT DATA

PARCEL #: RPK05130000040
PARCEL AREA: 1.09 ACRES PER SURVEY (47,480 SF)
ZONING DISTRICT: LR- LIMITED RESIDENTIAL DISTRICT
FLOODPLAIN OVERLAY DISTRICT: YES
AVALANCHE OVERLAY DISTRICT: NO
MOUNTAIN BOUNDARY: NO

OCCUPANCY: R-3 - SINGLE FAMILY DWELLING
CONSTRUCTION TYPE: TYPE V
ZONING HEIGHT LIMIT: 35'
STORIES: 2
SETBACKS: 15' FRONT, 20' REAR, GREATER OF 1' FOR EVERY 2' OF BUILDING HEIGHT OF 10' SIDE

PARKING: 2 REQ'D PER DWELLING UNIT
AUTOMATIC SPRINKLER SYSTEM REQ'D: YES ; NFPA 13D

MAX BULIDING COVERAGE (LR ZONE): 35%
PROPOSED BUILDING COVERAGE: 18% (SEE SHEET G-010)

APPLICABLE CODES:

ALL CONSTRUCTION SHALL COMPLY WITH:

2018 INTERNATIONAL BUILDING CODE*
2018 INTERNATIONAL RESIDENTIAL CODE*
2018 INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENTS*
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL SWIMMING POOL AND SPA CODE
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 INTERNATIONAL PROPERTY MAINTENANCE CODE

*AS AMENDED BY THE IDAHO BUILDING CODE BOARD AND INCLUDING NOTED APPENDICES.

NATIONAL GREEN BUILDING STANDARD [SILVER CERTIFICATION]
TITLE 15 KETCHUM MUNICIPAL CODE
APPENDIX M OF THE IBC AS AMENDED BY THE CITY OF KETCHUM

ALL APPLICABLE COUNTY ORDINANCES
CONTRACTOR SHALL KEEP A COPY OF THE ABOVE CODE SECTIONS ON THE JOB SITE AT ALL TIMES.

JURISDICTIONAL AGENCY SHALL BE THE KETCHUM BUILDING DEPARTMENT.

NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DRAWINGS, CALCULATIONS, GOVERNMENTAL AGENCY APPROVALS AND FEES TO COMPLETE THIS WORK. CONTRACTOR/SUBCONTRACTORS SHALL SUBMIT MECHANICAL, ELECTRICAL, COMMUNICATIONS AND PLUMBING DRAWINGS TO RO ROCKETT DESIGN FOR PREVIEW OF DEVICE TYPES, LOCATIONS AND QUANTITIES, HVAC ZONING/THERMOSTAT LOCATIONS, ETC. PRIOR TO SUBMITTING FOR PERMIT AND CONSTRUCTION.

VICINITY MAP

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 - 100 BELL DRIVE
KETCHUM, IDAHO 83340
TEL: 208.726.9512

STRUCTURAL ENGINEER:

LFA
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239 9700

MEP ENGINEER:

CES ENGINEERING SERVICES, LLC
1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

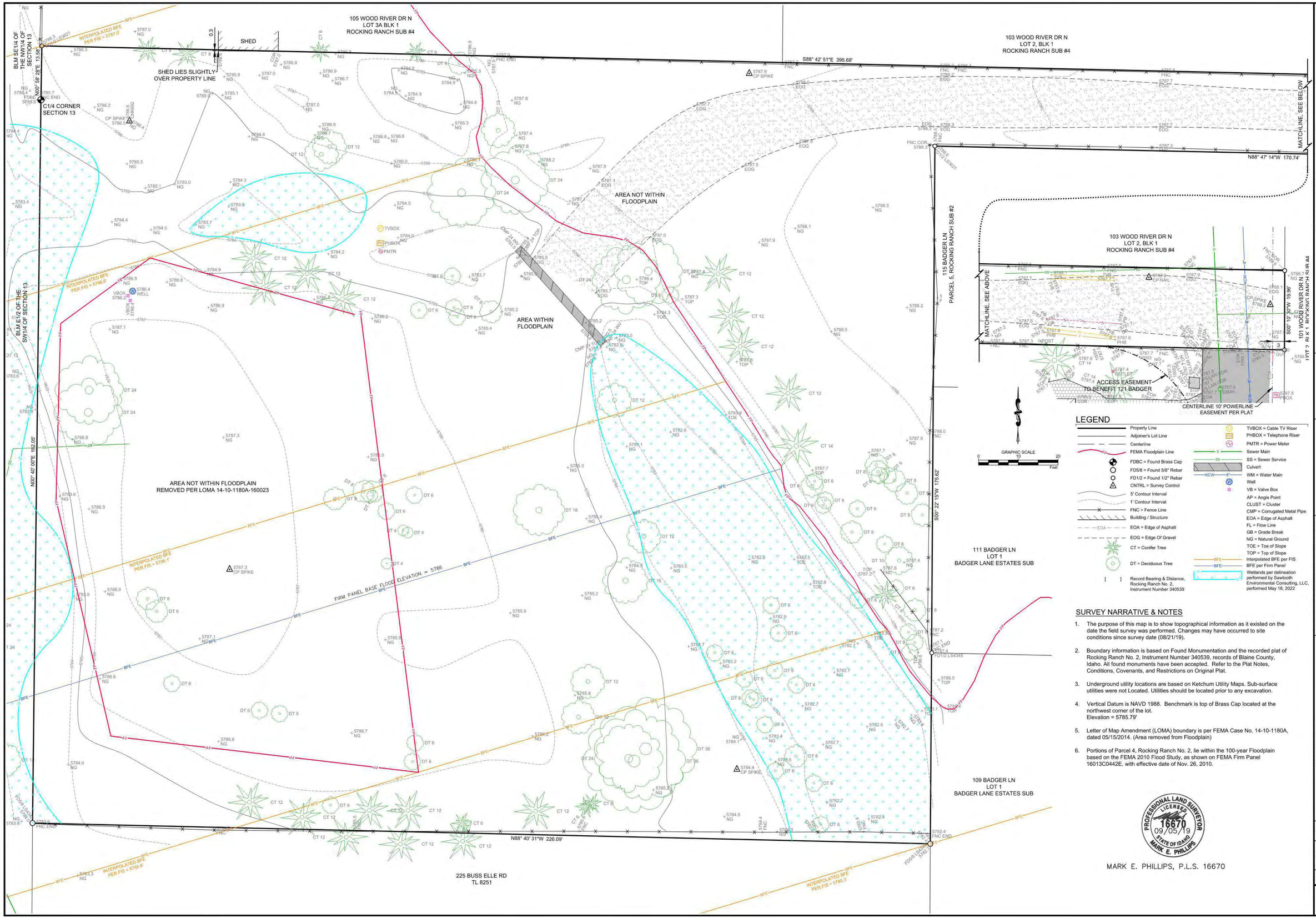
DRAWING TITLE:

COVER SHEET - FLOODPLAIN PERMIT

DRAWING NUMBER:

000

NOT FOR CONSTRUCTION



LEGEND

- Property Line
- Adjoiner's Lot Line
- Centerline
- FEMA Floodplain Line
- FDBC = Found Brass Cap
- FD5/8 = Found 5/8" Rebar
- FD1/2 = Found 1/2" Rebar
- CNTRL = Survey Control
- 5' Contour Interval
- 1' Contour Interval
- FNC = Fence Line
- Building / Structure
- EOA = Edge of Asphalt
- EOG = Edge Of Gravel
- CT = Conifer Tree
- DT = Deciduous Tree
- [ ] Record Bearing & Distance, Rocking Ranch No. 2, Instrument Number 340539
- TVBOX = Cable TV Riser
- PHBOX = Telephone Riser
- PMTR = Power Meter
- Sewer Main
- SS = Sewer Service
- Culvert
- WM = Water Main
- Well
- VB = Valve Box
- AP = Angle Point
- CLUST = Cluster
- CMP = Corrugated Metal Pipe
- EOA = Edge of Asphalt
- FL = Flow Line
- GB = Grade Break
- NG = Natural Ground
- TOE = Toe of Slope
- TOP = Top of Slope
- Interpolated BFE per FIS
- BFE per Firm Panel
- Wetlands per delineation performed by Sawtooth Environmental Consulting, LLC, performed May 18, 2022

SURVEY NARRATIVE & NOTES

1. The purpose of this map is to show topographical information as it existed on the date the field survey was performed. Changes may have occurred to site conditions since survey date (08/21/19).
2. Boundary information is based on Found Monumentation and the recorded plat of Rocking Ranch No. 2, Instrument Number 340539, records of Blaine County, Idaho. All found monuments have been accepted. Refer to the Plat Notes, Conditions, Covenants, and Restrictions on Original Plat.
3. Underground utility locations are based on Ketchum Utility Maps. Sub-surface utilities were not Located. Utilities should be located prior to any excavation.
4. Vertical Datum is NAVD 1988. Benchmark is top of Brass Cap located at the northwest corner of the lot.
   Elevation = 5785.79'
5. Letter of Map Amendment (LOMA) boundary is per FEMA Case No. 14-10-1180A, dated 05/15/2014. (Area removed from Floodplain)
6. Portions of Parcel 4, Rocking Ranch No. 2, lie within the 100-year Floodplain based on the FEMA 2010 Flood Study, as shown on FEMA Firm Panel 16013C0442E, with effective date of Nov. 26, 2010.

PROFESSIONAL LAND SURVEYOR LICENSED 16670 09/05/19 STATE OF IDAHO MARK E. PHILLIPS

MARK E. PHILLIPS, P.L.S. 16670

PARCEL 4, ROCKING RANCH SUB #2

A TOPOGRAPHIC MAP SHOWING
LOCATED WITHIN SECTION 13, T.4 N., R.17 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR GEORGINA & CHARLES TRAIN

PROJECT INFORMATION
P:\adskproj\6144-03\dwg\Topo\6144-02_topo-working.dwg 08/21/22 9:41:59 PM

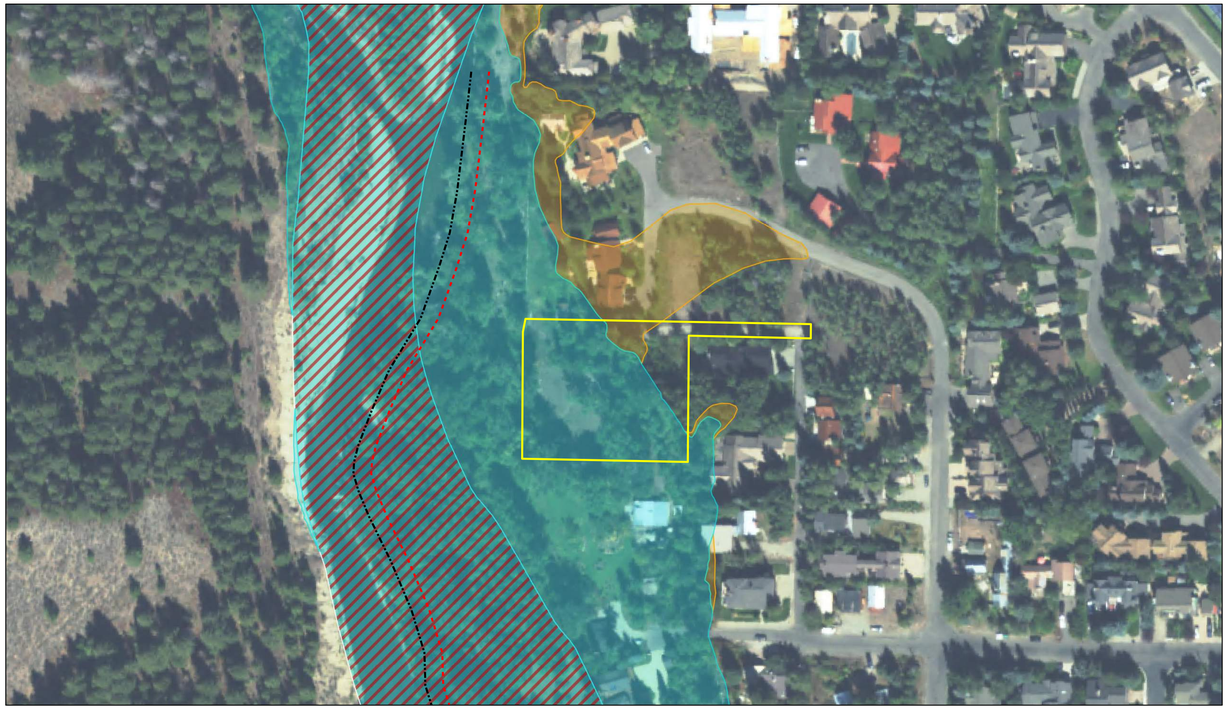
DESIGNED BY
CT
DRAWN BY
SMF
CHECKED BY

GALENA ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
(208) 788-4612 fax
email galena@galena-engineering.com

NO	DATE	BY	REVISIONS

TOPO

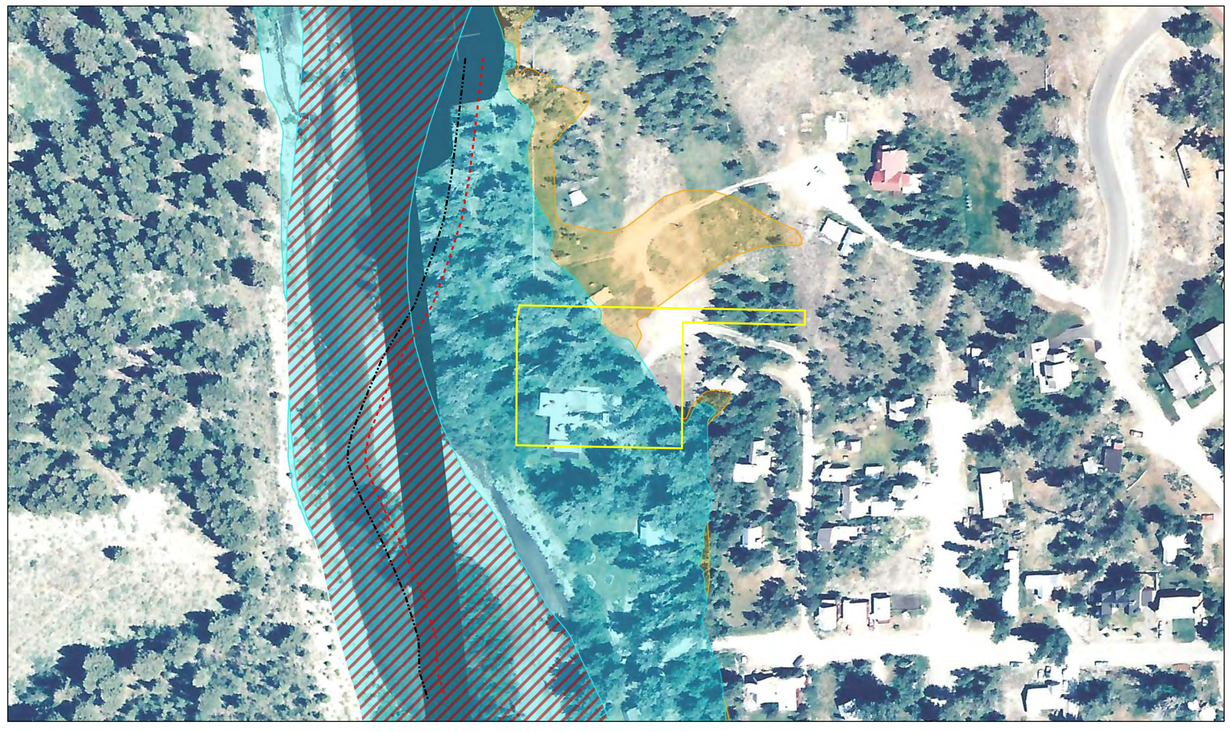
Path: F:\Projects\Presidio Vista\121 Badger\Floodplain.mxd



NAIP 2021 IMAGERY (NON-FLOOD IMAGERY)

BIG WOOD RIVER 5-11-2017 (FLOOD IMAGERY)

BIG WOOD RIVER 5-19-2006 (FLOOD IMAGERY)



BIG WOOD RIVER 6-23-1986 (FLOOD IMAGERY)

Legend

- Property
- Approximate OHWM
- 25' Offset Riparian Setback
- Special Flood Hazard Area (Floodplain, 1%)
- Floodway
- 500 Year Floodplain (0.2%)
- X, Area of Minimal Flood Hazard
- D, Unstudied

N

1 inch = 100 feet

BROCKWAY ENGINEERING, PLLC.
JJJ - Date: 12/20/2022

121 BADGER LANE

HYDROLOGY ANALYSIS

AERIAL IMAGES AS TITLED

SHEET LEGEND

SYMBOL	DESCRIPTION
	Property Line
FP	Floodplain
MHW	Setbacks / Easements
	Wetlands
	Floodplain
	Disturbed Area

N

0 40 60 FT

SCALE: 1" = 20'-0"

BYLA
LANDSCAPE ARCHITECTS
323 Lewis . | Ketchum, ID
(208) 726 5907 • (208) 720 0215
www.byla.us

ISSUE:
7 2/17/2023 UPDATED FP DEV. PERMIT
REVISIONS:

LANDSCAPE PLAN

BADGER LANE

121 BADGER LANE KETCHUM, ID 83340

FILENAME:	BADGER LANE_ 2023_SHIFT.vwx
PROJECT MANAGER:	XX
DRAWN BY:	XX
ISSUE DATE:	2/17/2023
PLOT DATE:	2/23/23 12:06:14 PM

SITE OVERVIEW

SHEET NO.

L1.0

FLOODPLAIN SHOWN IN BLUE

EXISTING WETLAND

EXISTING WETLAND

AREA OUTSIDE OF FLOODPLAIN

EXISTING DRIVE

PLANTINGS FROM PREVIOUS HOUSE

AREA OUTSIDE OF FLOODPLAIN

EXISTING CULVERT

EXISTING WELL PER SURVEY TO BE ABANDONED

EXISTING SEWER PER SURVEY

APPROXIMATE EDGE OF EXISTING VEGETATION CANOPY

APPROXIMATE LOCATION OF PREVIOUS RESIDENCE

AREA OUTSIDE OF FLOODPLAIN

EXISTING VEGETATION TO BE THINNED FOR NEW PLANTINGS

EXISTING WETLAND

EXISTING WETLAND

APPROXIMATE EDGE OF EXISTING VEGETATION CANOPY

AREA OUTSIDE OF FLOODPLAIN

EXISTING WETLAND

FLOODPLAIN SHOWN IN BLUE

OOD ELEVATION = 5786

SHEET LEGEND

SYMBOL	DESCRIPTION
	Property Line
	Floodplain
(XXXX) (XXXX)	Existing Contours
	Disturbed
	Existing Tree Canopy
	Existing Wetlands
	Existing Fence
	Survey Point
	Existing Tree To Be Removed

EXISTING TREES OVER 2" CALIPER

SYMBOL	DESCRIPTION
	Aspen
	Cottonwood
	Spruce
	Fir

N

0 10 20 FT

SCALE: 1" = 10'

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ISSUE:
7 2/17/2023 UPDATED FP DEV. PERMIT
REVISIONS:

LANDSCAPE PLAN

BADGER LANE

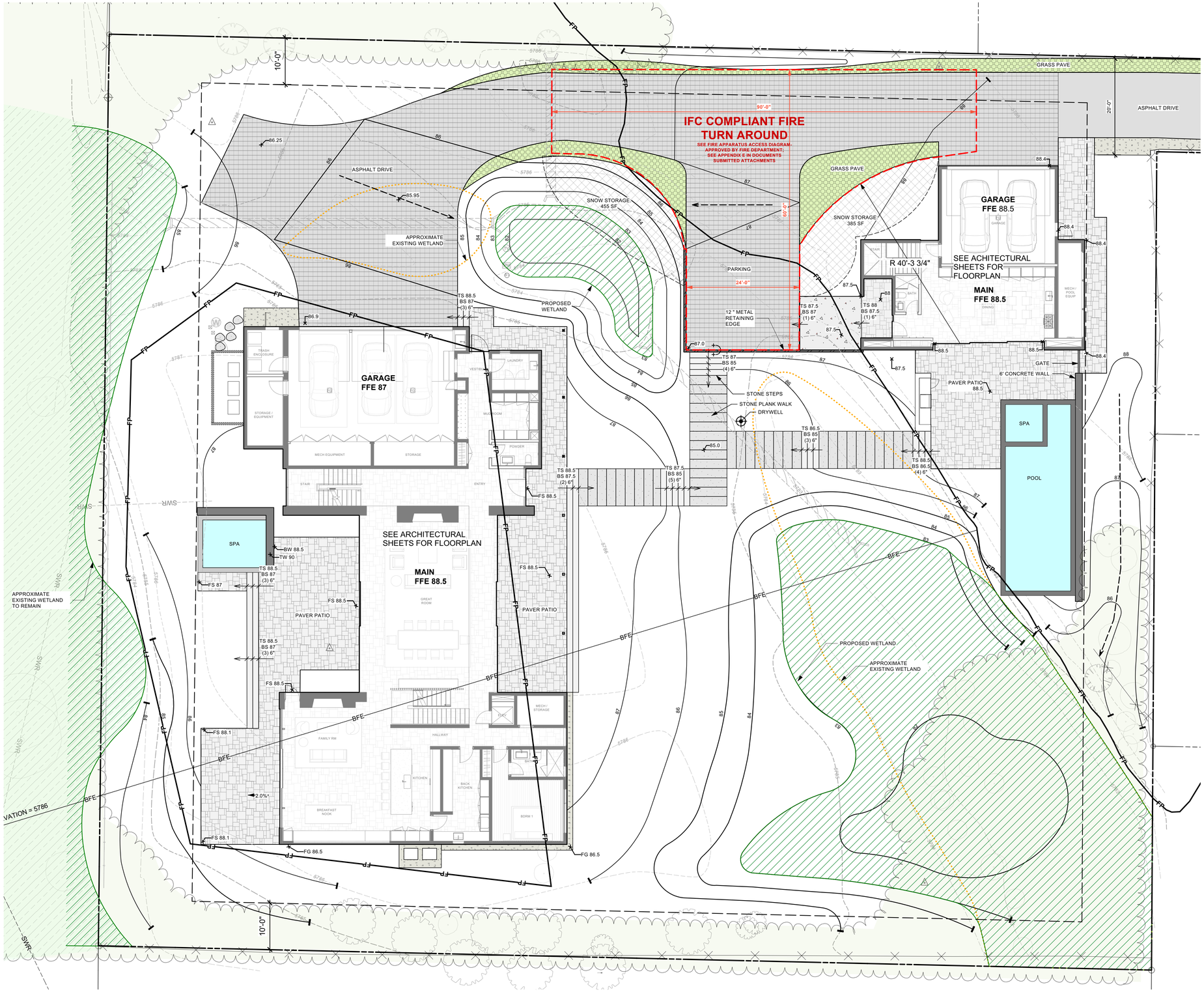
121 BADGER LANE KETCHUM, ID 83340

FILENAME:	BADGER LANE_ 2023_SHIFT.vwx
PROJECT MANAGER:	XX
DRAWN BY:	XX
ISSUE DATE:	2/17/2023
PLOT DATE:	2/23/23 12:06:15 PM

EXISTING CONDITIONS & DEMO PLAN

SHEET NO.

L1.1



SHEET LEGEND

SYMBOL	DESCRIPTION
	Property Line
	Floodplain
	Setbacks / Easements
(XXXX) (XXXX)	Existing Contours
XXXX XXXX	Proposed Contours
	Existing Fence
	Existing Vegetation
	Survey Point
	Grass Pave
	Surface Material - Metal
	Surface Material - Gravel
	Surface Material - Asphalt
	Surface Material - Stone
	Surface Material - Stone Paver
	Landscape - Native
	Landscape - Lawn
	Proposed Wetland
	Snowmelted Surface

SNOW STORAGE CALCULATIONS

SNOW STORAGE PROVIDED (AS PERCENTAGE OF DRIVEWAY AREA)	30.00%
	TOTAL AREA
PAVEMENT MATERIAL	2787 SF
SNOW STORAGE REQUIRED	836 SF
SNOW STORAGE PROVIDED	2464 SF

THESE CALCULATIONS ARE IN COMPLIANCE WITH CITY OF KETCHUM CODE

GRADING + DRAINAGE LEGEND

Symbol	Definition
	CMP Culvert
2.0%	% Pitch
	Drainage Direction
	Flush Grade Condition
	Catchbasin
FFE	Finish Floor Elevation
+10.50	Spot Elevation
FG	Finish Grade
FS	Finished Surface
TS	Top of Step
BS	Bottom of Step
TW	Top of Wall
BW	Bottom of Wall
TM	Top of Metal

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BADGER LANE
121 BADGER LANE KETCHUM, ID 83340

FILENAME: BADGER LANE_ 2023_SHIFT.vwx
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SITE & GRADING PLAN

SHEET NO.

L2.0

PROPOSED ENTRY MONUMENT

REQUIRED ACCESS EASEMENT AND FIRE APPARATUS ACCESS (DRIVING SURFACE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHTING)

SEE APPENDIX D IN DOCUMENTS SUBMITTAL ATTACHMENTS FOR FIRE APPARATUS ACCESS DIAGRAM- APPROVED BY FIRE DEPARTMENT

SEE APPENDIX D.1 FOR RECORDED ACCESS EASEMENT (INSTRUMENT #690693

GRASS PAVE

NEW ASPHALT

GRAVEL

20'-0"

EXTENDED TURN RADIUS

EXISTING STONE PILAR TO BE REMOVED

R 28'-9"

EXISTING PAVERS TO REMAIN

EXISTING RESIDENCE

GARAGE

STAIR

MECH / POOL EQUIP

BATH

LIVING / DINING

BFE

FE

FP

SWR

KCW

EOA

PB

BADGER LANE

SHEET LEGEND

SYMBOL	DESCRIPTION
	Property Line
	Floodplain
	Setbacks / Easements
(XXXX) (XXXX)	Existing Contours
XXXX XXXX	Proposed Contours
	Existing Fence
	Existing Vegetation
	Survey Point
	Grass Pave
	Surface Material - Metal
	Surface Material - Gravel
	Surface Material - Asphalt
	Surface Material - Stone
	Surface Material - Stone Paver
	Landscape - Native
	Landscape - Lawn
	Proposed Wetland

N

0 10 20 FT

SCALE: 1" = 10'

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ISSUE:
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LANDSCAPE PLAN
BADGER LANE
121 BADGER LANE KETCHUM, ID 83340

FILENAME:	BADGER LANE_ 2023_SHIFT.vwx
PROJECT MANAGER:	XX
DRAWN BY:	XX
ISSUE DATE:	2/17/2023
PLOT DATE:	2/23/23 12:06:16 PM

FRONT DRIVE EASEMENT

SHEET NO.

L2.1

SHEET LEGEND

SYMBOL	DESCRIPTION
	Property Line
	Floodplain
	Setbacks / Easements
(XXXX) (XXXX)	Existing Contours
XXXX XXXX	Proposed Contours
	Existing Fence
	Survey Point
	Existing Vegetation
	Proposed Wetland
	Grass Pave
	Surface Material - Metal
	Surface Material - Gravel
	Surface Material - Asphalt
	Surface Material - Stone
	Surface Material - Stone Paver
	Landscape - Native
	Landscape - Lawn
	Landscape - Trees

IRRIGATION SCHEDULE

AREA DESCRIPTION	IRRIGATION TYPE
Trees + Shrubs	Buried Drip Irrigation
Perennial Beds	N/A
Lawn	Overhead Irrigation
Native Re-Veg	Temporary Overhead

IRRIGATION NOTES:
ALL TREES TO HAVE DRIP IRRIGATION AND ALL OTHER PLANTINGS TO BE IRRIGATED

PLANT SCHEDULE

ABBRV	QTY.	SIZE	BOTANICAL NAME	COMMON NAME
TREES				
AC	24	8' B&B	*Abies concolor*	White Fir
AL	19	8'-12' B&B	*Abies lasiocarpa*	Subalpine Fir
PT	51	2"-4" CAL.	*Populus tremuloides*	Quaking Aspen
SHRUBS				
AA	8	5 GAL.	*Amelanchier alnifolia*	Serviceberry
CSI	115	10 gal	*Cornus sericea 'Isanti'*	Isanti Red-Osier Dogwood
RA	13	5 GAL.	*Ribes alpinum*	Alpine Currant
NATIVE GRASSES				
ABBRV	QTY.	SIZE	BOTANICAL NAME	COMMON NAME
BC	8093 SF		*Bromus carinatus*	Mountain Brome

LIGHTING LEGEND

SYMBOL	QTY	DESCRIPTION
	15	Lighting - Path Light
	7	Lighting - Wall Light

LIGHTING NOTES:
ALL LIGHTING SHOWN FOR DESIGN INTENT.
ALL LIGHTING WILL BE COMPLIANT TO CITY OF KETCHUM DARK SKY LIGHTING ORDINANCES.

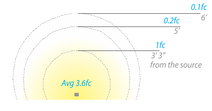
PATH LIGHT

QUAD LED PATH LIGHT
6091

WAC LANDSCAPE LIGHTING

SPECIFICATIONS

Input: 9-15VAC (Transformer is required)
Power: 3.0W / 4.5VA
Brightness: Up to 100 lm
CRI: 90
Rated Life: 60,000 hours



WALL LIGHT

Model: WL-LED100
LEDme® Step Light

WAC LIGHTING
Responsible Lighting®

PRODUCT DESCRIPTION

Horizontal rectangle LEDme® Step Light. Designed for safety and style on stairways, patios, decks, balcony areas, walkways and building perimeters.

Features an architectural design. Energy efficient for long-lasting indoor and outdoor lighting solutions. Creates an attractive, romantic impression at night.

SPECIFICATIONS

Construction: Die-cast aluminum or 316 marine grade cast stainless steel
Power: Direct wiring, no remote driver needed. Input voltage: 120V or 277VAC 50/60Hz
Light Source: 2700K or 3000K CCT Samsung HV-AC High Power LED, CRI: 90 Optional color lenses. Total power consumption of 3.5W
Mounting: Fits into 2" x 4" J-Box with minimum inside dimensions of 3"L x 2"W x 2"H Includes bracket for J-Box mount.
Dimming: Dim to 10% with electronic low voltage (ELV) dimmer Approved dimmers: Lutron Nova-T NTELV-300 & NTELV-600, Lutron Vierti VTELV-600, Lutron Diva DVELV-300P, Lutron Skylark SELV-300P, Lutron Maestro MAELV-600
Standards: IP66, UL & cUL Listed for wet locations, Title 24 JA8-2016 Compliant.

N
0 10 20 FT
SCALE: 1" = 10'

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LANDSCAPE PLAN

BADGER LANE

121 BADGER LANE KETCHUM, ID 83340

FILENAME: BADGER LANE_ 2023_SHIFT.vwx
PROJECT MANAGER: XX
DRAWN BY: XX
ISSUE DATE: 2/17/2023
PLOT DATE: 2/23/23 12:06:16 PM

LANDSCAPE PLAN

SHEET NO.

L3.0

2/21/2023 5:53:51 PM

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 8330\
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 - 100 BELL DRIVE
KETCHUM, IDAHO 83340
TEL: 208.726.9512

STRUCTURAL ENGINEER:

LFA
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239 9700

MEP ENGINEER:

CES ENGINEERING SERVICES, LLC
1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

DRAWING TITLE:

REFERENCE PLAN / LEVEL 01

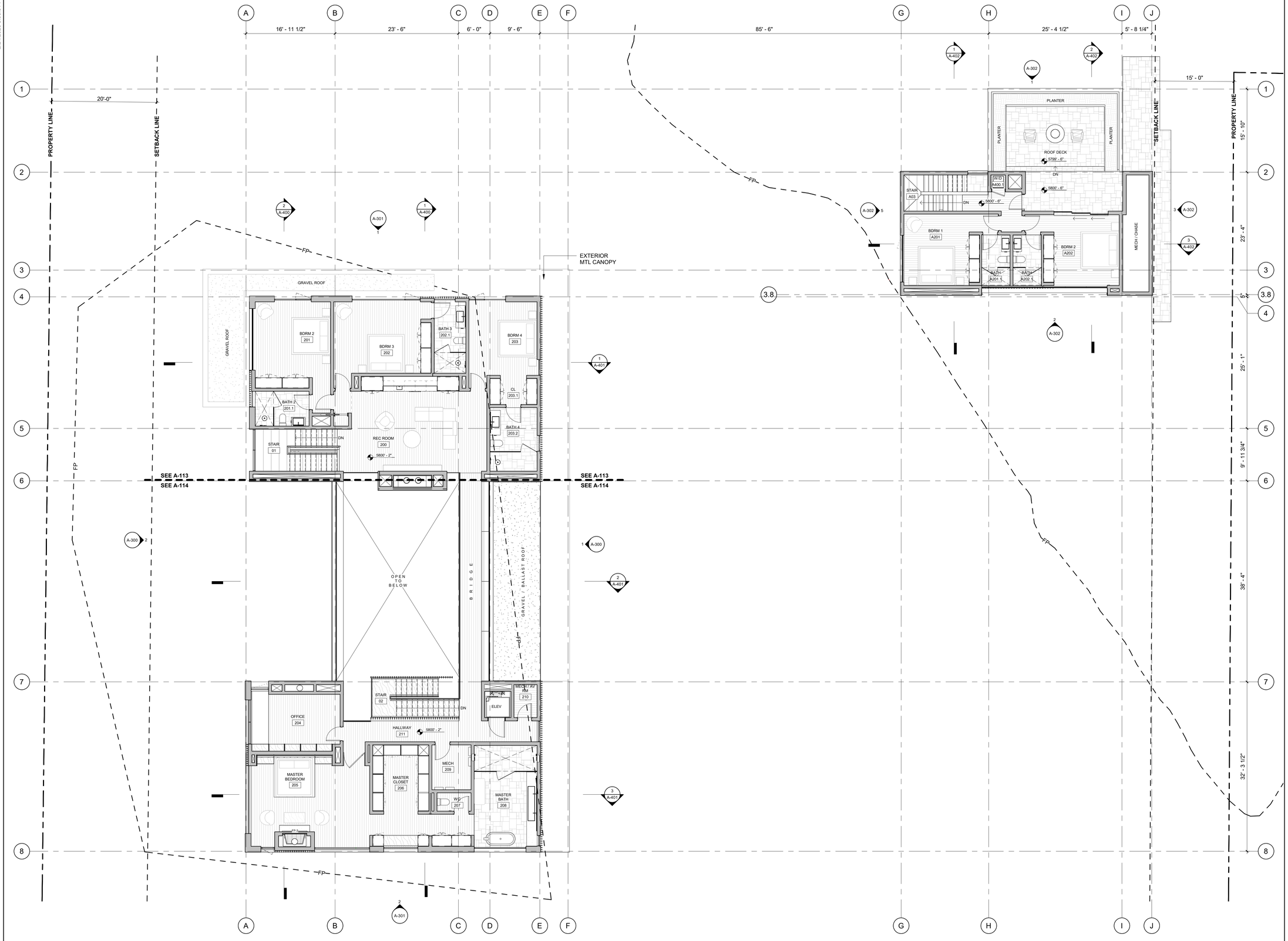
DRAWING NUMBER:

A-101

NOT FOR CONSTRUCTION

1 | 1/8" = 1'-0" | **REFERENCE PLAN / LEVEL 01**

2/21/2023 5:56:51 PM



1 | 1/8" = 1'-0" | **REFERENCE PLAN / LEVEL 02**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

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HAILEY, ID 83333
TEL: 208.788.1705

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KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

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P.O. BOX 733 - 100 BELL DRIVE
KETCHUM, IDAHO 83340
TEL: 208.726.9512

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EL SEGUNDO, CA 90245
TEL: 213.239 9700

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1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

DRAWING TITLE:

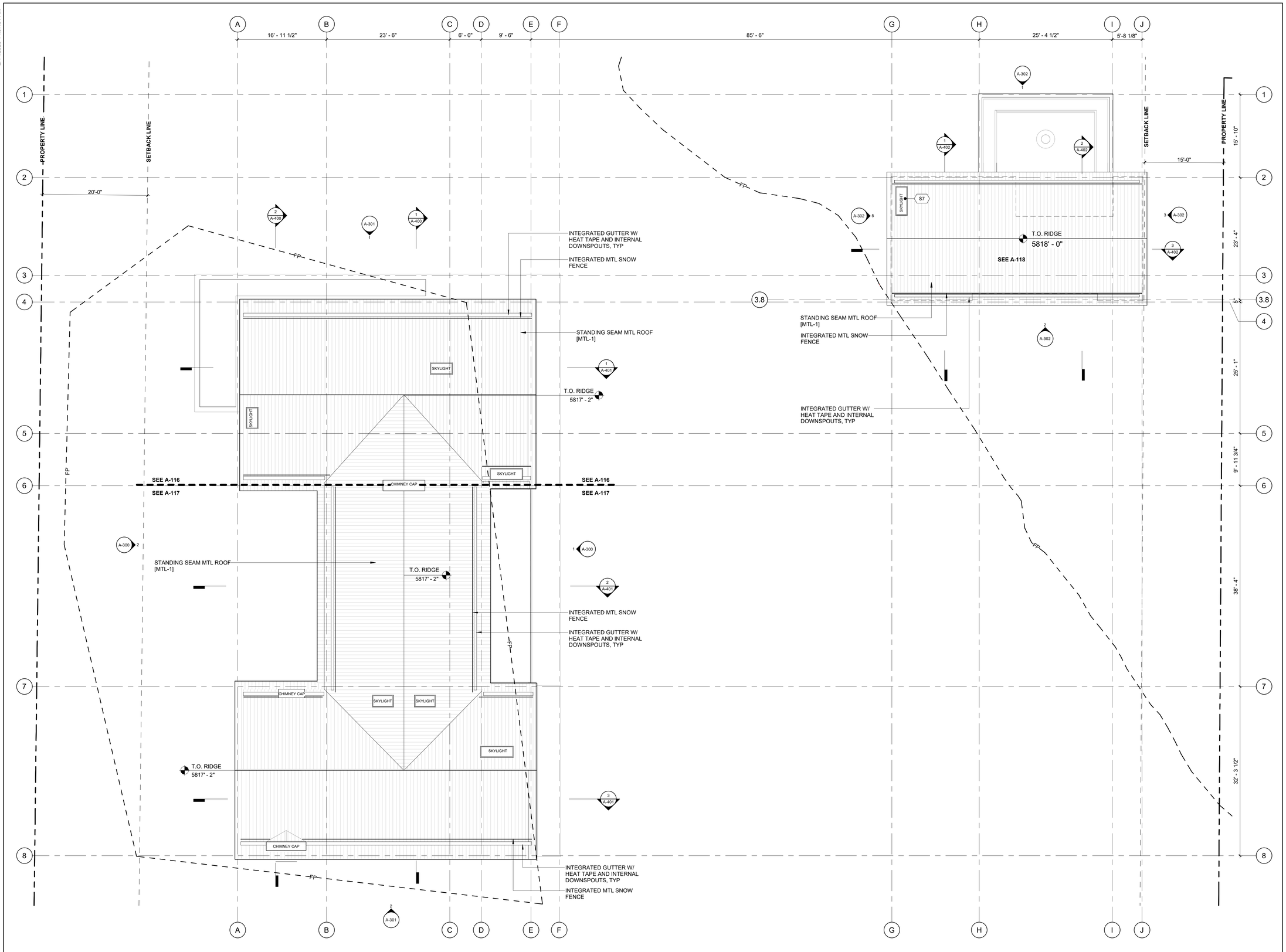
REFERENCE PLAN / LEVEL 02

DRAWING NUMBER:

A-102

NOT FOR CONSTRUCTION

2/14/2023 11:07:01 AM



1 | 1/8" = 1'-0" | **REFERENCE PLAN / ROOF**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

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1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

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KETCHUM, ID 83340
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TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

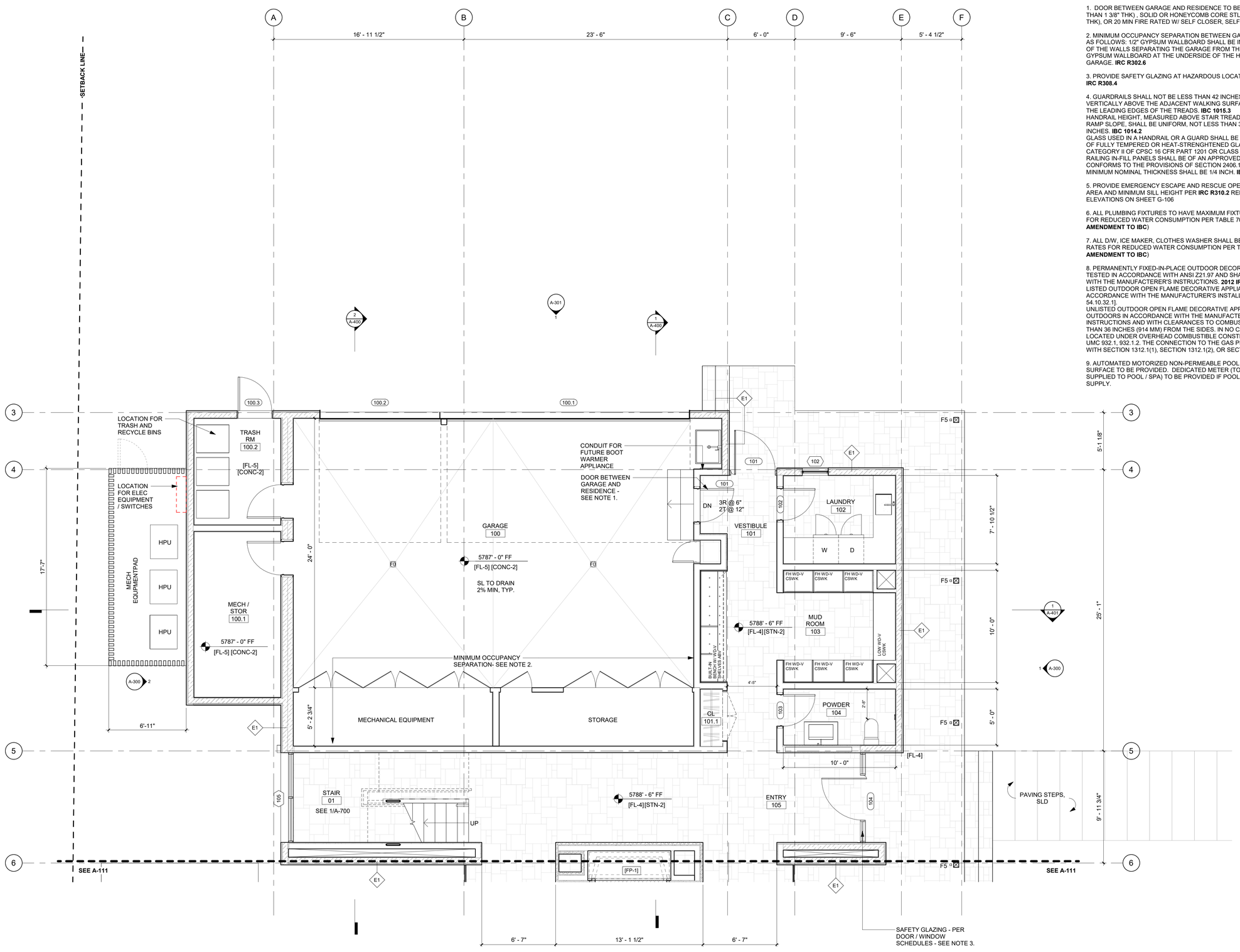
REFERENCE PLAN / ROOF

DRAWING NUMBER:

A-103

NOT FOR CONSTRUCTION

2/22/2023 9:20:01 AM



GENERAL NOTES:

1. DOOR BETWEEN GARAGE AND RESIDENCE TO BE A SOLID WD DOOR (NOT LESS THAN 1 3/8" THK) , SOLID OR HONEYCOMB CORE STL DOOR (NOT LESS THAN 1 3/8" THK), OR 20 MIN FIRE RATED W/ SELF CLOSER, SELF LATCHING DEVICE. **IRC R302.5.1**

2. MINIMUM OCCUPANCY SEPARATION BETWEEN GARAGE AND RESIDENCE SHALL BE AS FOLLOWS: 1/2" GYPSUM WALLBOARD SHALL BE INSTALLED ON THE GARAGE SIDE OF THE WALLS SEPARATING THE GARAGE FROM THE RESIDENCE AND 5/8" TYPE-X GYPSUM WALLBOARD AT THE UNDERSIDE OF THE HABITABLE ROOM ABOVE THE GARAGE. **IRC R302.6**

3. PROVIDE SAFETY GLAZING AT HAZARDOUS LOCATIONS; GLAZING TO BE TEMPERED. **IRC R308.4**

4. GUARDRAILS SHALL NOT BE LESS THAN 42 INCHES IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS. **IBC 1015.3**
HANDRAIL HEIGHT, MEASURED ABOVE STAIR TREAD NOSINGS, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE UNIFORM, NOT LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES. **IBC 1014.2**
GLASS USED IN A HANDRAIL OR A GUARD SHALL BE LAMINATED GLASS CONSTRUCTED OF FULLY TEMPERED OR HEAT-STRENGHTENED GLASS AND SHALL COMPLY WITH CATEGORY II OF CPSC 16 CFR PART 1201 OR CLASS A OF ANSI Z97.1. GLAZING IN RAILING IN-FILL PANELS SHALL BE OF AN APPROVED SAFETY GLAZING MATERIAL THAT CONFORMS TO THE PROVISIONS OF SECTION 2406.1.1. FOR ALL GLAZING TYPES, THE MINIMUM NOMINAL THICKNESS SHALL BE 1/4 INCH. **IBC 2407.1 AND 1607.8**

5. PROVIDE EMERGENCY ESCAPE AND RESCUE OPENINGS WITH MINIMUM OPENING AREA AND MINIMUM SILL HEIGHT PER **IRC R310.2** REFER TO WINDOW SCHEUDLE AND ELEVATIONS ON SHEET G-106

6. ALL PLUMBING FIXTURES TO HAVE MAXIMUM FIXTURE AND FITTING FLOW RATES FOR REDUCED WATER CONSUMPTION PER TABLE 702.1 **(APPENDIX M, KETCHUM AMENDMENT TO IBC)**

7. ALL D/W, ICE MAKER, CLOTHES WASHER SHALL BE ENERGY STAR RATED; MAX FLOW RATES FOR REDUCED WATER CONSUMPTION PER TABLE (**APPENDIX M, KETCHUM AMENDMENT TO IBC**)

8. PERMANENTLY FIXED-IN-PLACE OUTDOOR DECORATIVE APPLIANCES SHALL BE TESTED IN ACCORDANCE WITH ANSI Z21.97 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTERER'S INSTRUCTIONS. **2012 IRC G24454.1**
LISTED OUTDOOR OPEN FLAME DECORATIVE APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. [NFPA 54.10.32.1].
UNLISTED OUTDOOR OPEN FLAME DECORATIVE APPLIANCES SHALL BE INSTALLED OUTDOORS IN ACCORDANCE WITH THE MANUFACTERER'S INSTALLATION INSTRUCTIONS AND WITH CLEARANCES TO COMBUSTIBLE MATERIAL OF NOT LESS THAN 36 INCHES (914 MM) FROM THE SIDES. IN NO CASE SHALL THE APPLIANCE BE LOCATED UNDER OVERHEAD COMBUSTIBLE CONSTRUCTION. [NFPA 54.10.32.2] 2012 UMC 932.1, 932.1.2. THE CONNECTION TO THE GAS PIPING SYSTEM SHALL COMPLY WITH SECTION 1312.1(1), SECTION 1312.1(2), OR SECTION 1312.1(3) [NFPA 54.10.32.3]

9. AUTOMATED MOTORIZED NON-PERMEABLE POOL COVER FOR ENTIRE POOL / SPA SURFACE TO BE PROVIDED. DEDICATED METER (TO MEASURE AMOUNT OF WATER SUPPLIED TO POOL / SPA) TO BE PROVIDED IF POOL / SPA IS CONNECTED TO WATER SUPPLY.

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

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LANDSCAPE ARCHITECT:

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TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO DATE ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

FLOOR PLAN / LEVEL 01 / NORTH

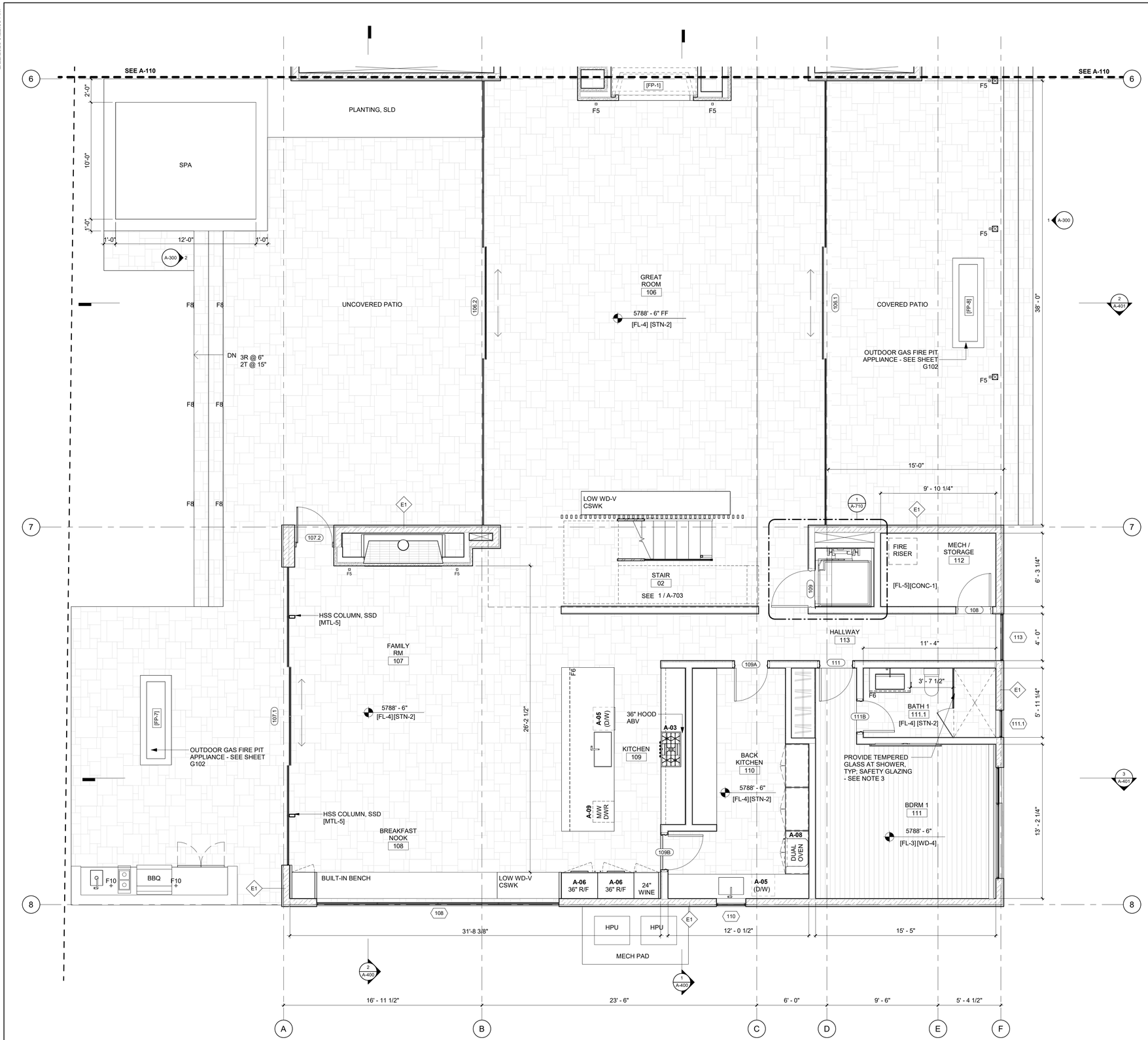
DRAWING NUMBER:

A-110

NOT FOR CONSTRUCTION

1 | 1/4" = 1'-0" | **FLOOR PLAN / LEVEL 01 / NORTH**

2/22/2023 9:22:55 AM



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4. GUARDRAILS SHALL NOT BE LESS THAN 42 INCHES IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS. **IBC 1015.3**
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9. AUTOMATED MOTORIZED NON-PERMEABLE POOL COVER FOR ENTIRE POOL / SPA SURFACE TO BE PROVIDED. DEDICATED METER (TO MEASURE AMOUNT OF WATER SUPPLIED TO POOL / SPA) TO BE PROVIDED IF POOL / SPA IS CONNECTED TO WATER SUPPLY.

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
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KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

FLOOR PLAN / LEVEL 01 / SOUTH

DRAWING NUMBER:

A-111

NOT FOR CONSTRUCTION

1 | 1/4" = 1'-0" | **FLOOR PLAN / LEVEL 01 / SOUTH**

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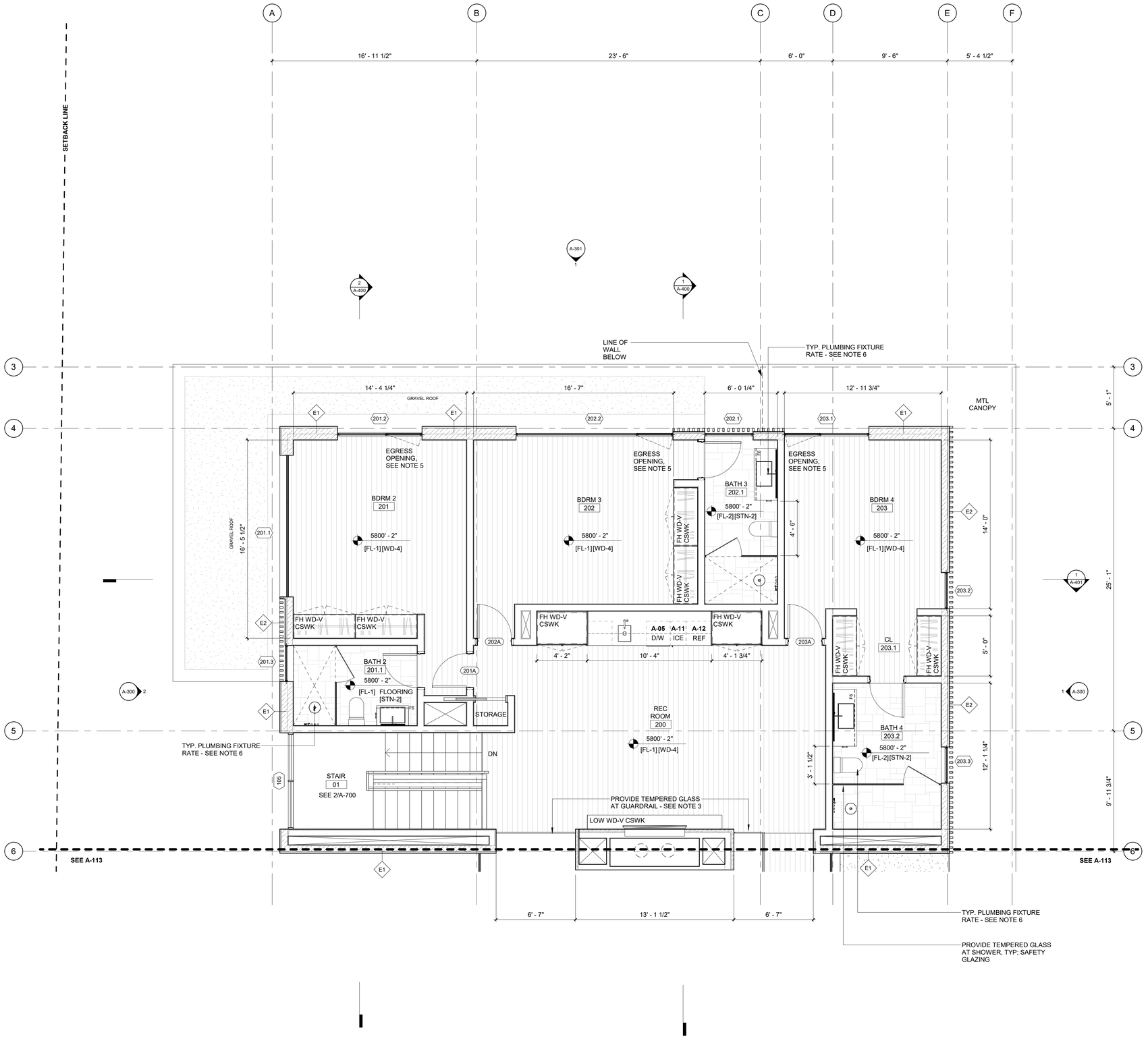

GENERAL NOTES:

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KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
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EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

FLOOR PLAN / LEVEL 02 / NORTH

DRAWING NUMBER:

A-112

NOT FOR CONSTRUCTION

1 | 1/4" = 1'-0" | **FLOOR PLAN / LEVEL 02 / NORTH**

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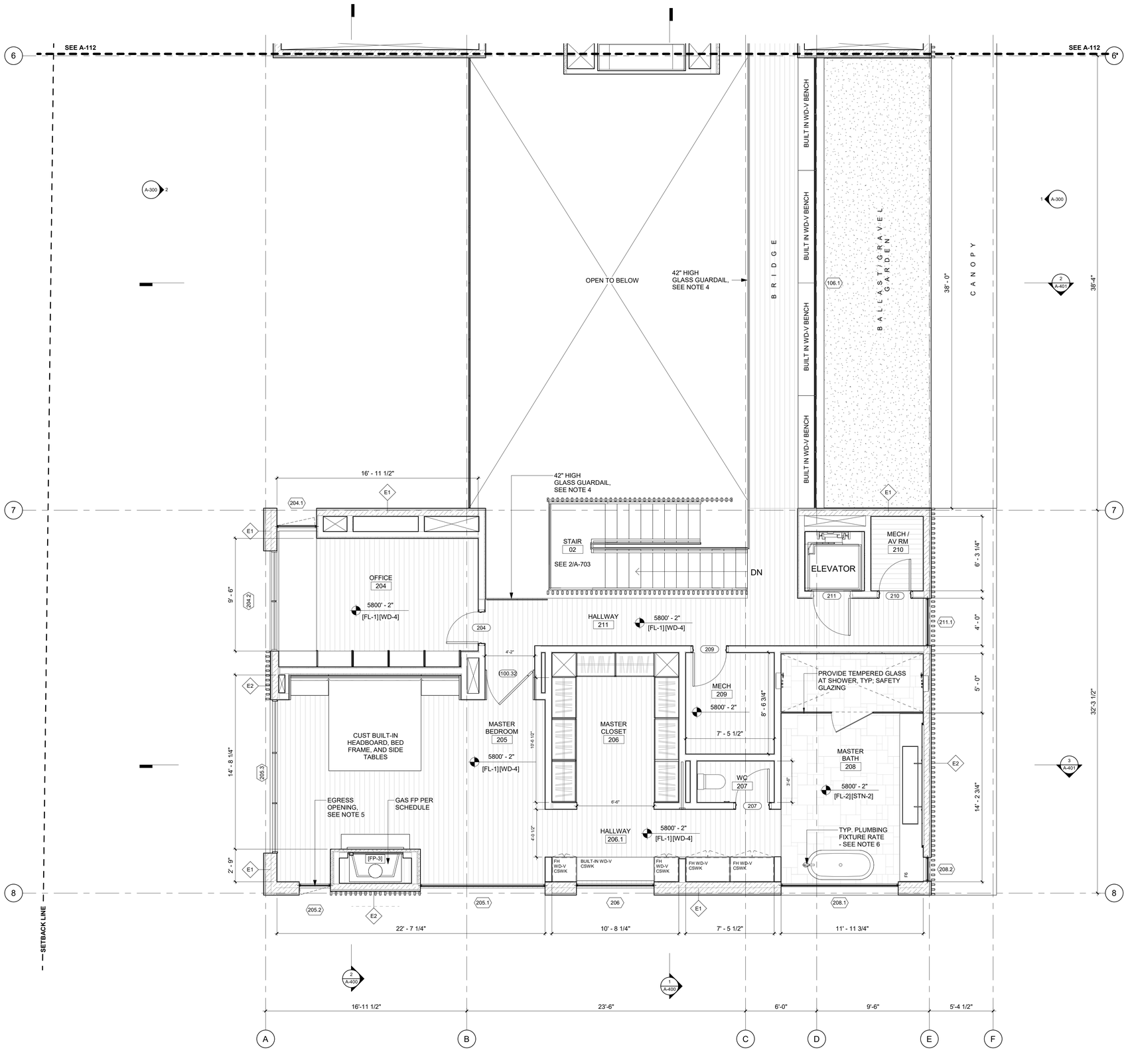

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BADGER RESIDENCE

OWNER:

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P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

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LIGHTING DESIGN CONSULTANT:

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270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

FLOOR PLAN / LEVEL 02 / SOUTH

DRAWING NUMBER:

A-113

NOT FOR CONSTRUCTION

1 | 1/4" = 1'-0" | **FLOOR PLAN / LEVEL 02 / SOUTH**

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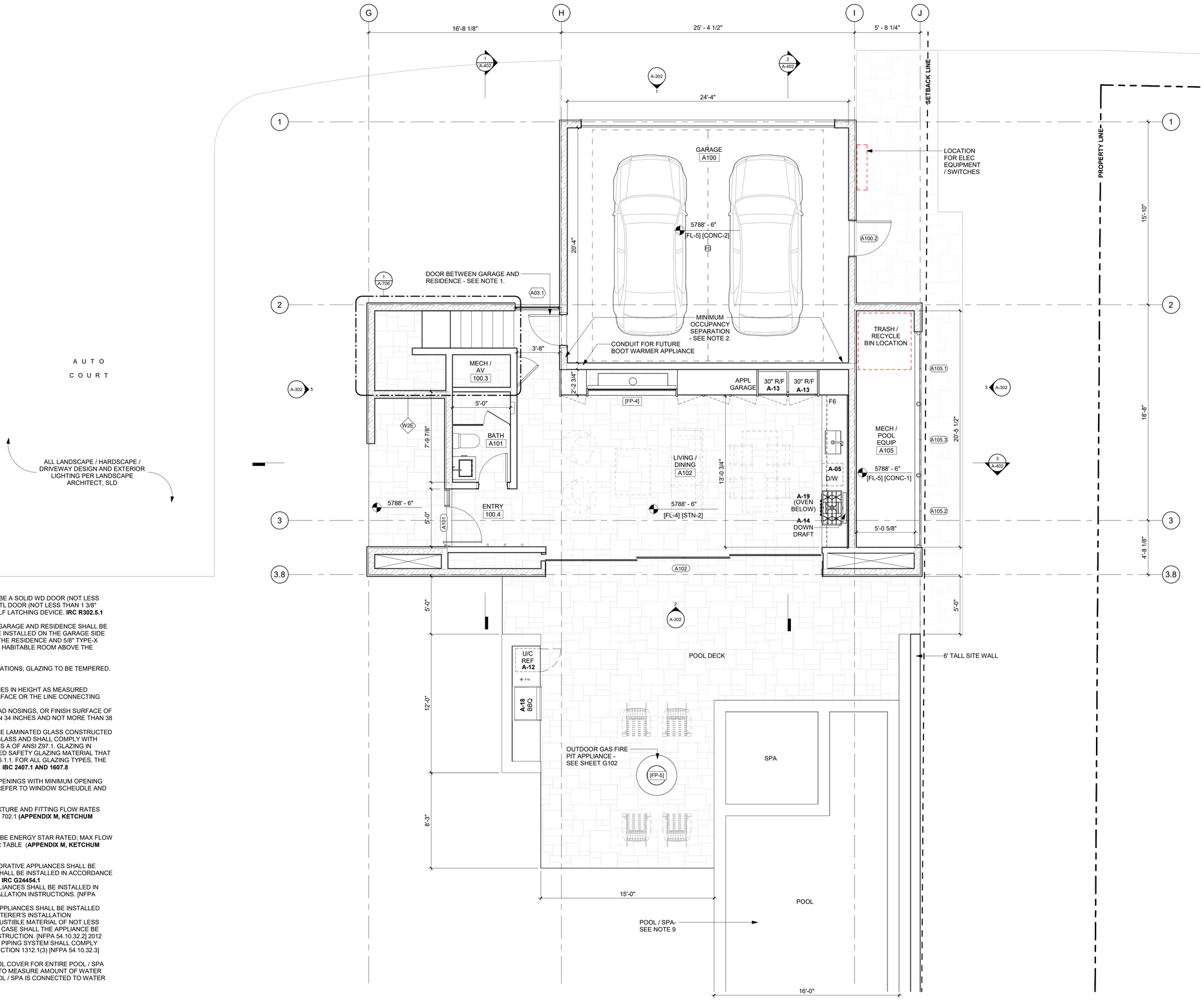

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BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
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SEAL:

NO	DATE	ISSUE

PROJECT:

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121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

DRAWING TITLE:

FLOOR PLAN / LEVEL 01 / ADU

DRAWING NUMBER:

A-114

NOT FOR CONSTRUCTION

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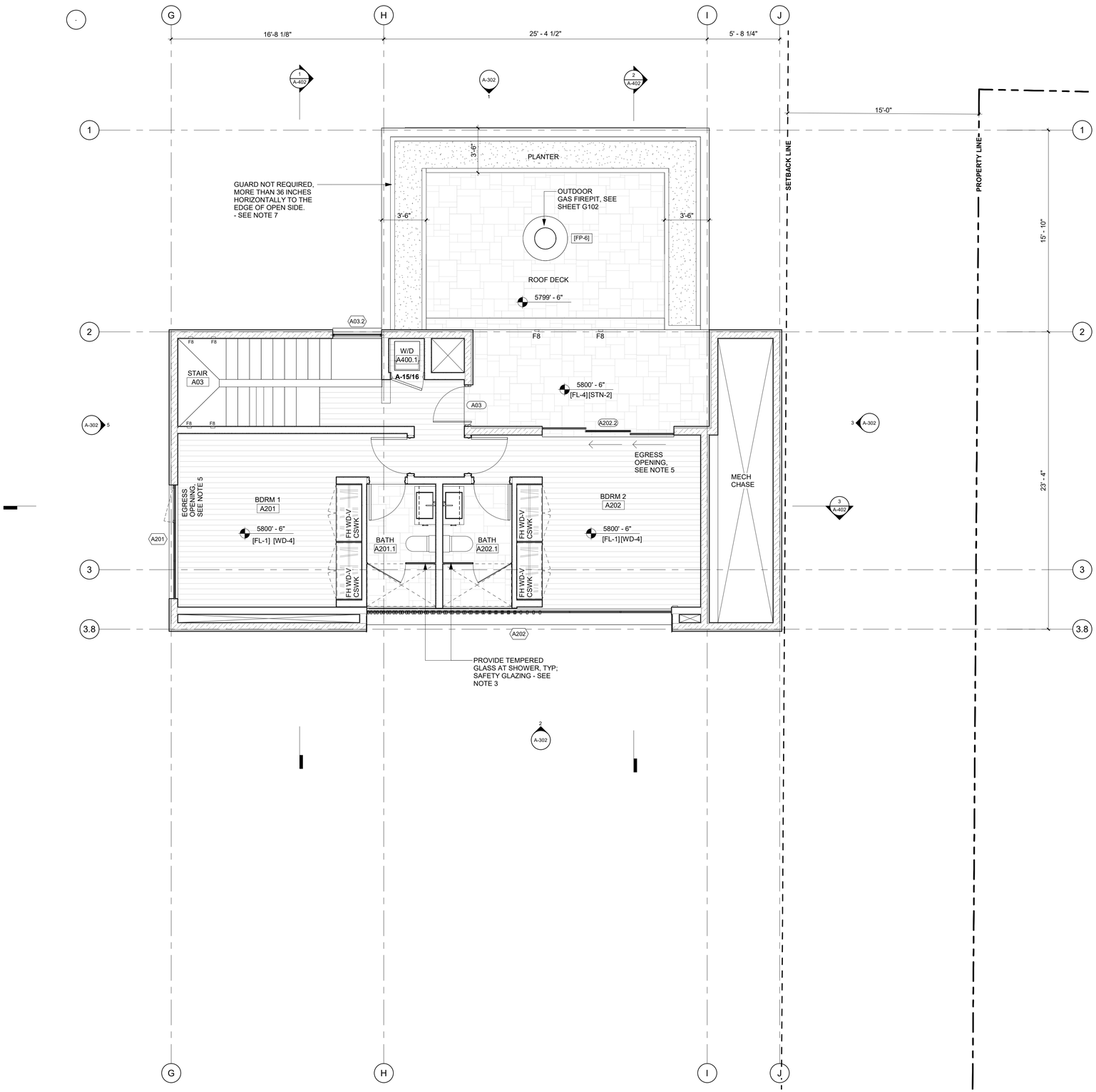

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2. MINIMUM OCCUPANCY SEPARATION BETWEEN GARAGE AND RESIDENCE SHALL BE AS FOLLOWS: 1/2" GYPSUM WALLBOARD SHALL BE INSTALLED ON THE GARAGE SIDE OF THE WALLS SEPARATING THE GARAGE FROM THE RESIDENCE AND 5/8" TYPE-X GYPSUM WALLBOARD AT THE UNDERSIDE OF THE HABITABLE ROOM ABOVE THE GARAGE. **IRC R302.6**

3. PROVIDE SAFETY GLAZING AT HAZARDOUS LOCATIONS; GLAZING TO BE TEMPERED. **IRC R308.4**

4. GUARDRAILS SHALL NOT BE LESS THAN 42 INCHES IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS. **IBC 1015.3**
HANDRAIL HEIGHT, MEASURED ABOVE STAIR TREAD NOSINGS, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE UNIFORM, NOT LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES. **IBC 1014.2**
GLASS USED IN A HANDRAIL OR A GUARD SHALL BE LAMINATED GLASS CONSTRUCTED OF FULLY TEMPERED OR HEAT-STRENGHTENED GLASS AND SHALL COMPLY WITH CATEGORY II OF CPSC 16 CFR PART 1201 OR CLASS A OF ANSI Z97.1. GLAZING IN RAILING IN-FILL PANELS SHALL BE OF AN APPROVED SAFETY GLAZING MATERIAL THAT CONFORMS TO THE PROVISIONS OF SECTION 2406.1.1. FOR ALL GLAZING TYPES, THE MINIMUM NOMINAL THICKNESS SHALL BE 1/4 INCH. **IBC 2407.1 AND 1607.8**

5. PROVIDE EMERGENCY ESCAPE AND RESCUE OPENINGS WITH MINIMUM OPENING AREA AND MINIMUM SILL HEIGHT PER **IRC R310.2** REFER TO WINDOW SCHEUDLE AND ELEVATIONS ON SHEET G-106

6. ALL PLUMBING FIXTURES TO HAVE MAXIMUM FIXTURE AND FITTING FLOW RATES FOR REDUCED WATER CONSUMPTION PER TABLE 702.1 **(APPENDIX M, KETCHUM AMENDMENT TO IBC)**

7. ALL D/W, ICE MAKER, CLOTHES WASHER SHALL BE ENERGY STAR RATED; MAX FLOW RATES FOR REDUCED WATER CONSUMPTION PER TABLE **(APPENDIX M, KETCHUM AMENDMENT TO IBC)**

8. PERMANENTLY FIXED-IN-PLACE OUTDOOR DECORATIVE APPLIANCES SHALL BE TESTED IN ACCORDANCE WITH ANSI Z21.97 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTERER'S INSTRUCTIONS. **2012 IRC G24454.1**
LISTED OUTDOOR OPEN FLAME DECORATIVE APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. [NFPA 54.10.32.1].
UNLISTED OUTDOOR OPEN FLAME DECORATIVE APPLIANCES SHALL BE INSTALLED OUTDOORS IN ACCORDANCE WITH THE MANUFACTERER'S INSTALLATION INSTRUCTIONS AND WITH CLEARANCES TO COMBUSTIBLE MATERIAL OF NOT LESS THAN 36 INCHES (914 MM) FROM THE SIDES. IN NO CASE SHALL THE APPLIANCE BE LOCATED UNDER OVERHEAD COMBUSTIBLE CONSTRUCTION. [NFPA 54.10.32.2] 2012 UMC 932.1, 932.1.2. THE CONNECTION TO THE GAS PIPING SYSTEM SHALL COMPLY WITH SECTION 1312.1(1), SECTION 1312.1(2), OR SECTION 1312.1(3) [NFPA 54.10.32.3]

9. AUTOMATED MOTORIZED NON-PERMEABLE POOL COVER FOR ENTIRE POOL / SPA SURFACE TO BE PROVIDED. DEDICATED METER (TO MEASURE AMOUNT OF WATER SUPPLIED TO POOL / SPA) TO BE PROVIDED IF POOL / SPA IS CONNECTED TO WATER SUPPLY.

2 | 1/4" = 1'-0" | **ADU / FLOOR PLAN / LEVEL 02**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 - 100 BELL DRIVE
KETCHUM, IDAHO 83340
TEL: 208.726.9512

STRUCTURAL ENGINEER:

LFA
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239 9700

MEP ENGINEER:

CES ENGINEERING SERVICES, LLC
1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO DATE ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

FLOOR PLAN / LEVEL 02 / ADU

DRAWING NUMBER:

A-115

NOT FOR CONSTRUCTION

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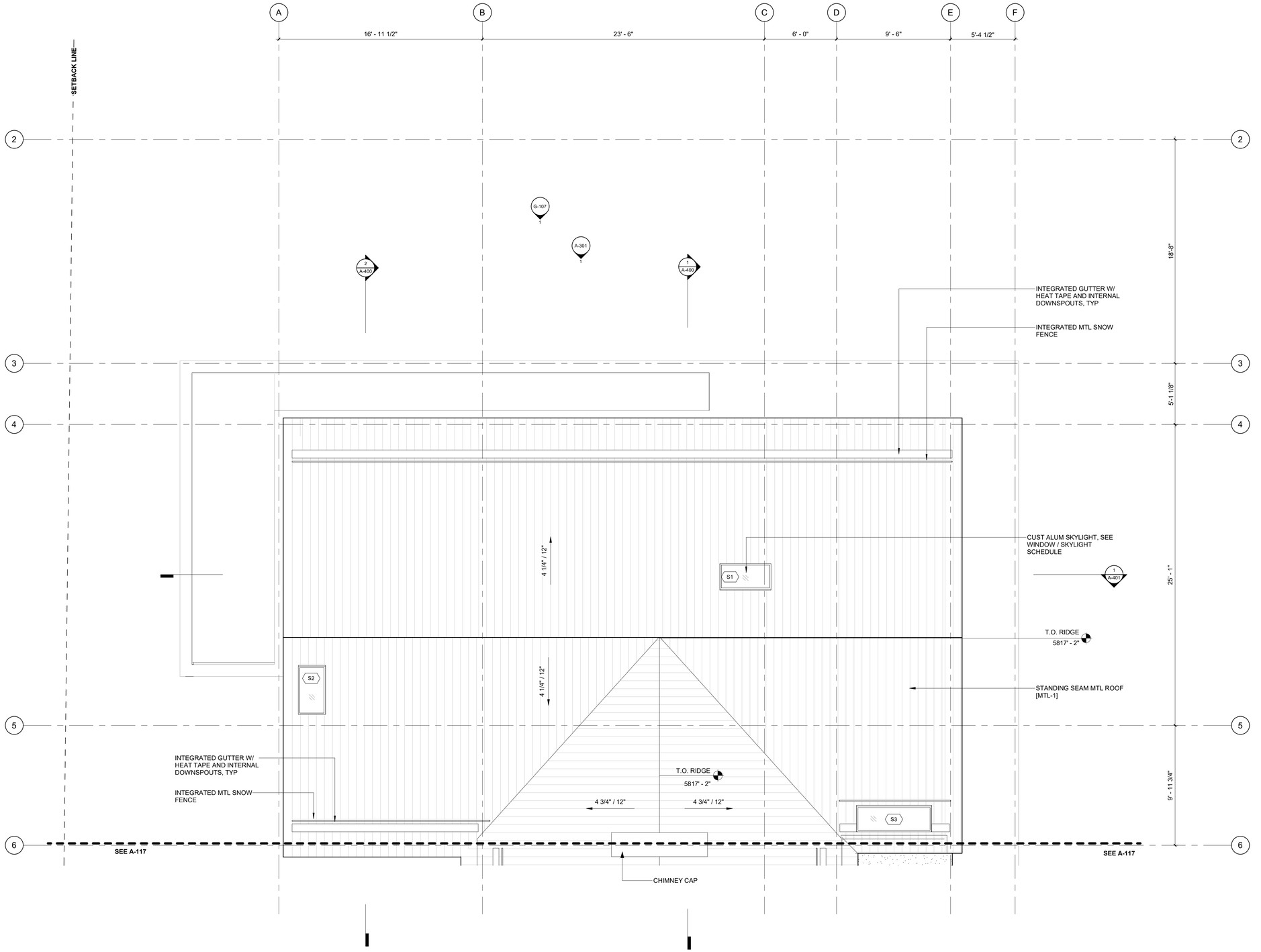

1 | 1/4" = 1'-0" | **PLAN / ROOF - NORTH**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

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270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

ROOF PLAN / NORTH

DRAWING NUMBER:

A-116

NOT FOR CONSTRUCTION

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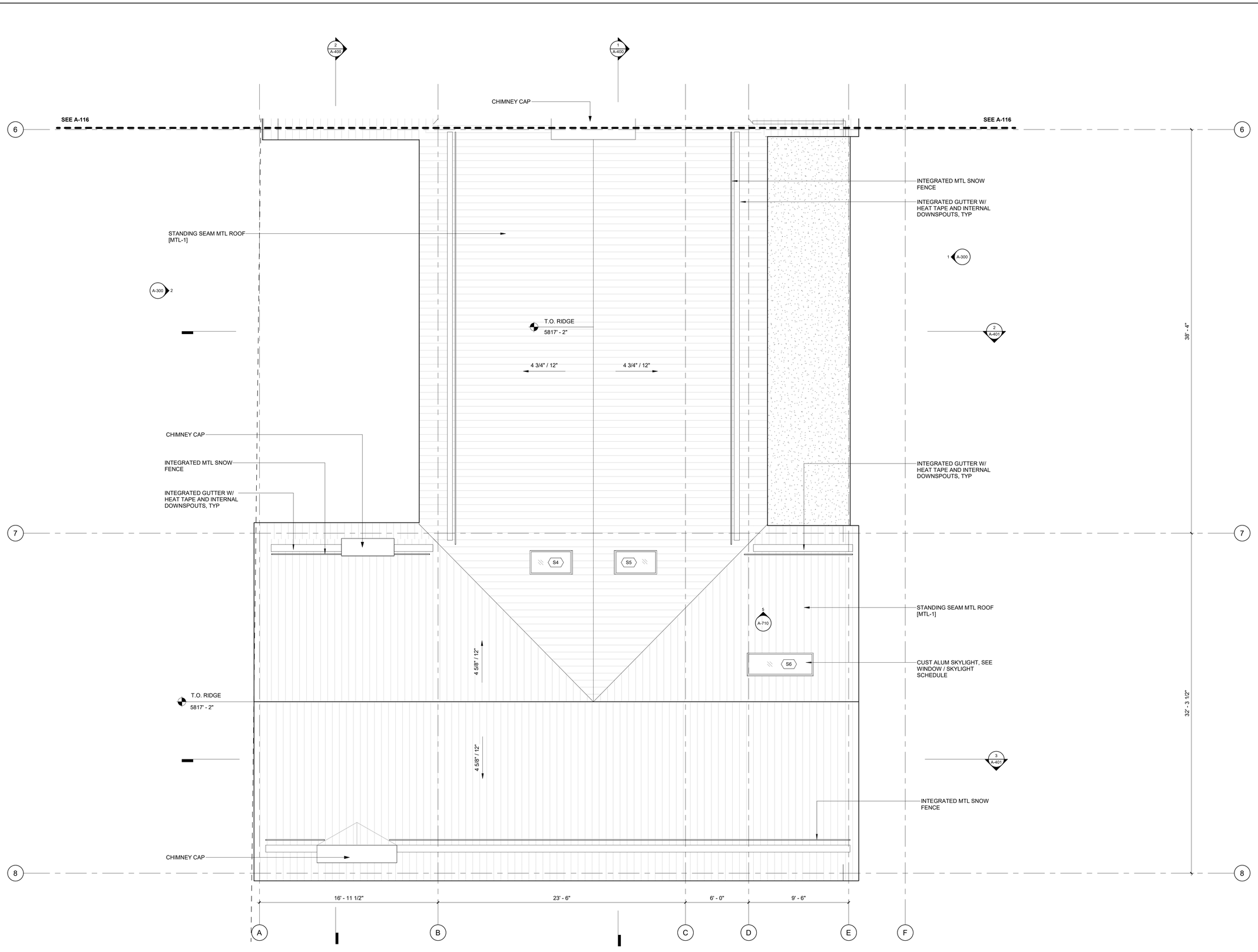

1 | 1/4" = 1'-0" | **PLAN / ROOF - SOUTH**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
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INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

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TEL: 208.736-8543

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LIGHTING DESIGN CONSULTANT:

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270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER
#2201

N

DRAWING TITLE:

ROOF PLAN / SOUTH

DRAWING NUMBER:

A-117

NOT FOR CONSTRUCTION

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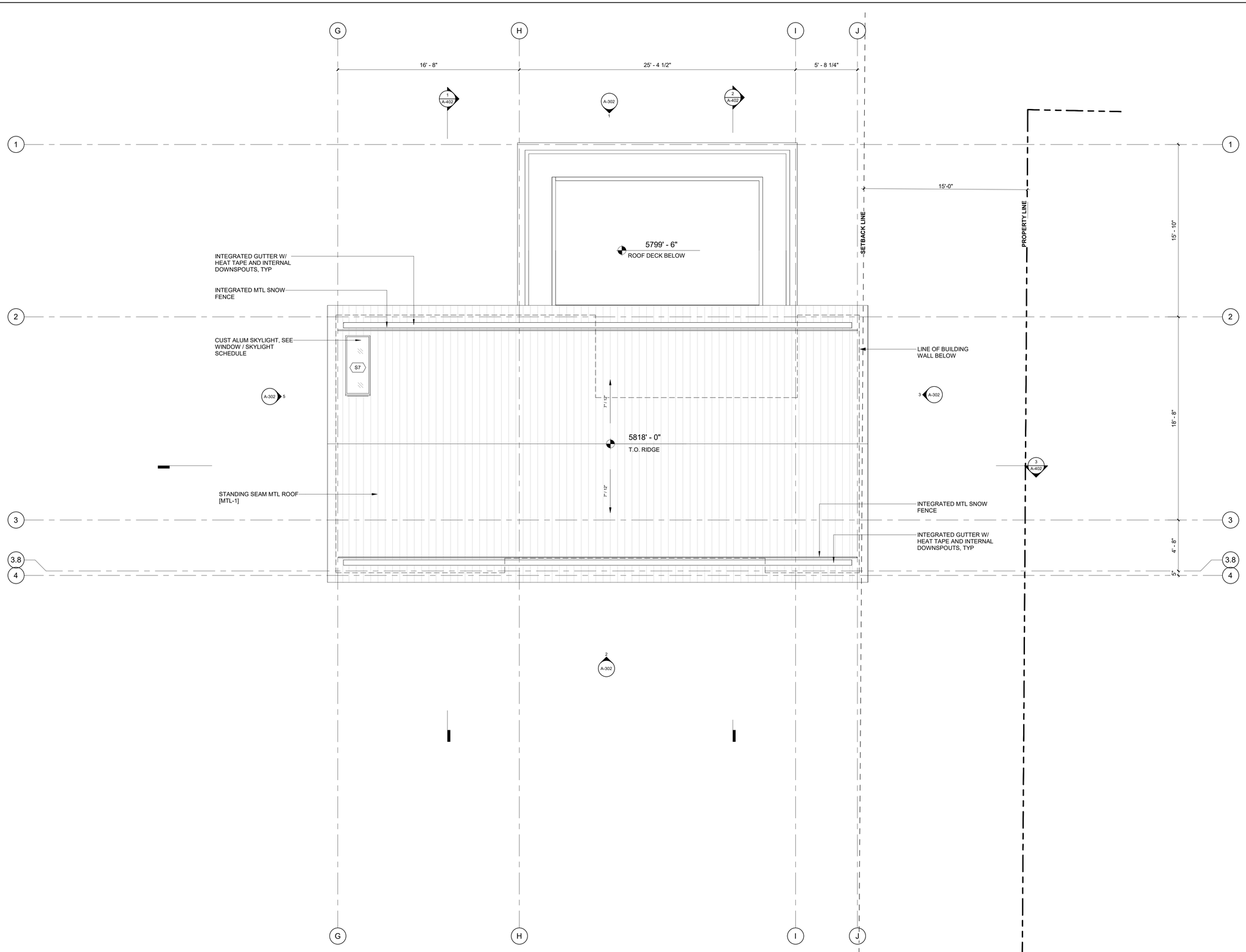

1 | 1/4" = 1'-0" | **PLAN / ROOF - ADU**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
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TEL: 213.784.0014

SURVEYOR:

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EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

ROOF PLAN / ADU

DRAWING NUMBER:

A-118

NOT FOR CONSTRUCTION

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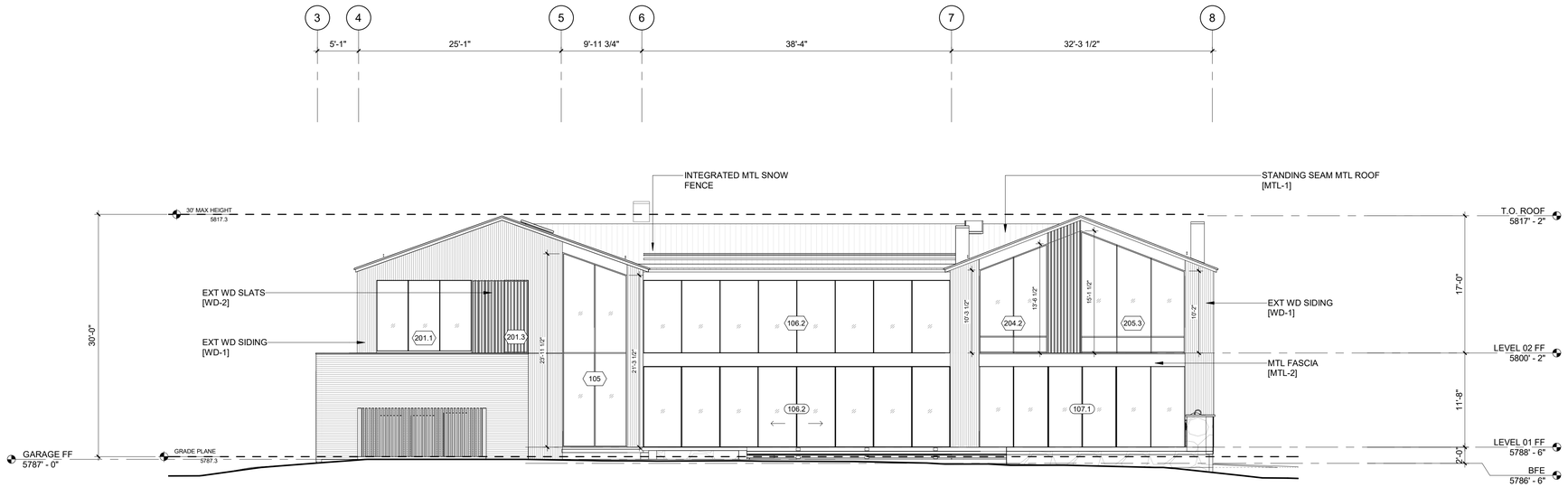
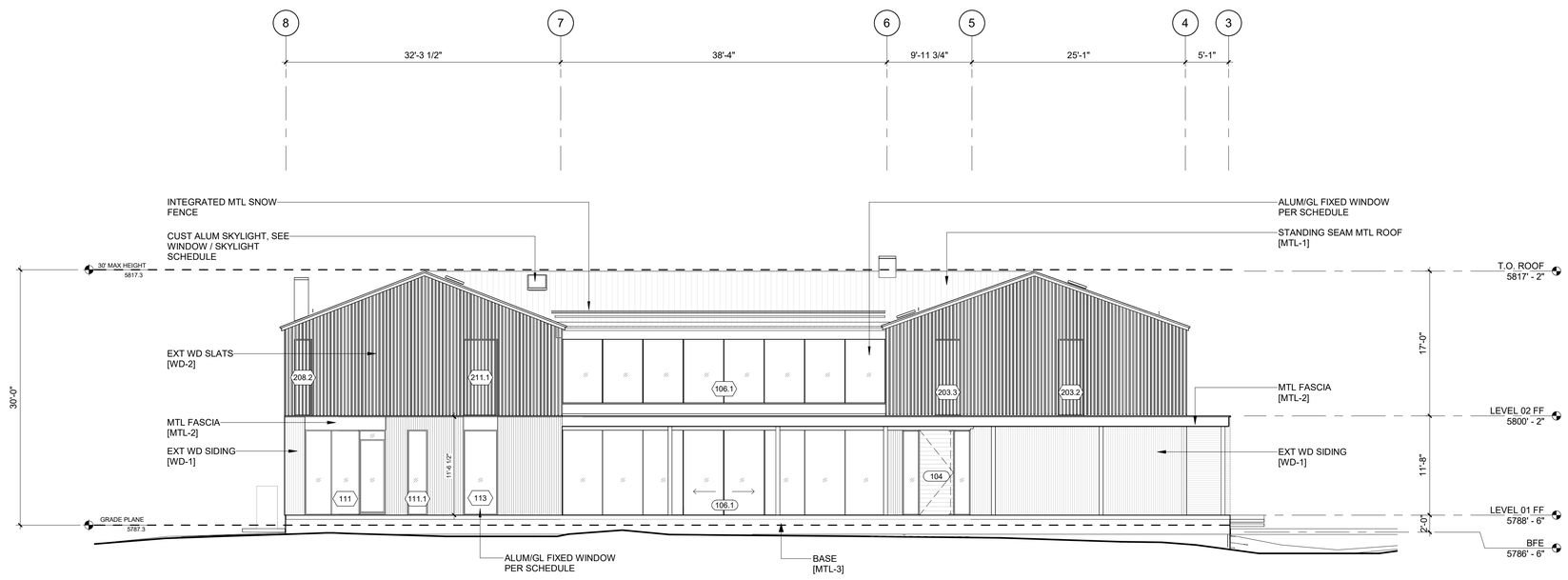


2 | 1/8" = 1'-0" | **ELEVATION / WEST**



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

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

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TEL: 208.720.6432

LANDSCAPE ARCHITECT:

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1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

EXTERIOR ELEVATIONS

DRAWING NUMBER:

A-300

NOT FOR CONSTRUCTION

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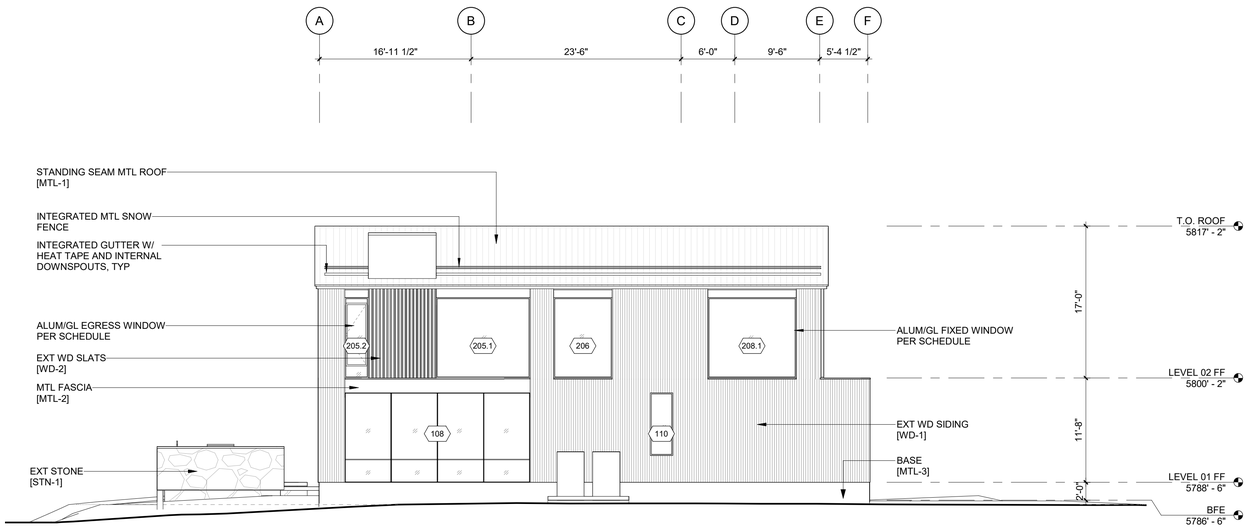
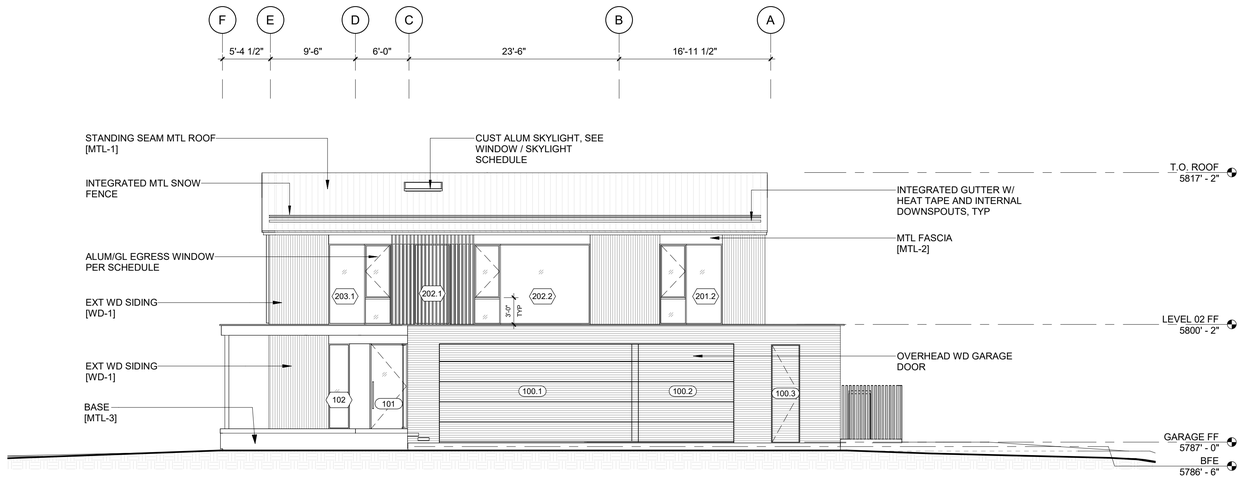


2 | 1/8" = 1'-0" | **ELEVATION / SOUTH**



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

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
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TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
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TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

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P.O. BOX 733 - 100 BELL DRIVE
KETCHUM, IDAHO 83340
TEL: 208.726.9512

STRUCTURAL ENGINEER:

LFA
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239 9700

MEP ENGINEER:

CES ENGINEERING SERVICES, LLC
1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

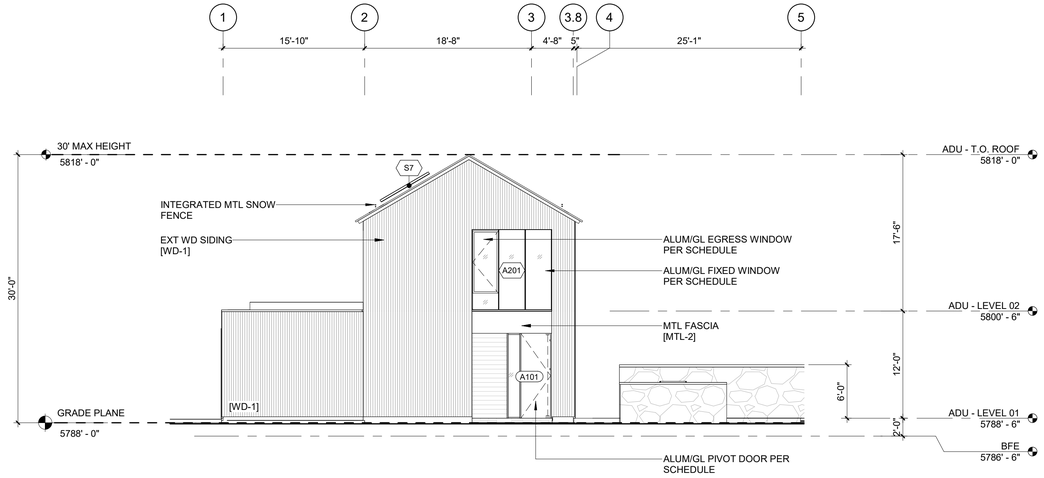
EXTERIOR ELEVATIONS

DRAWING NUMBER:

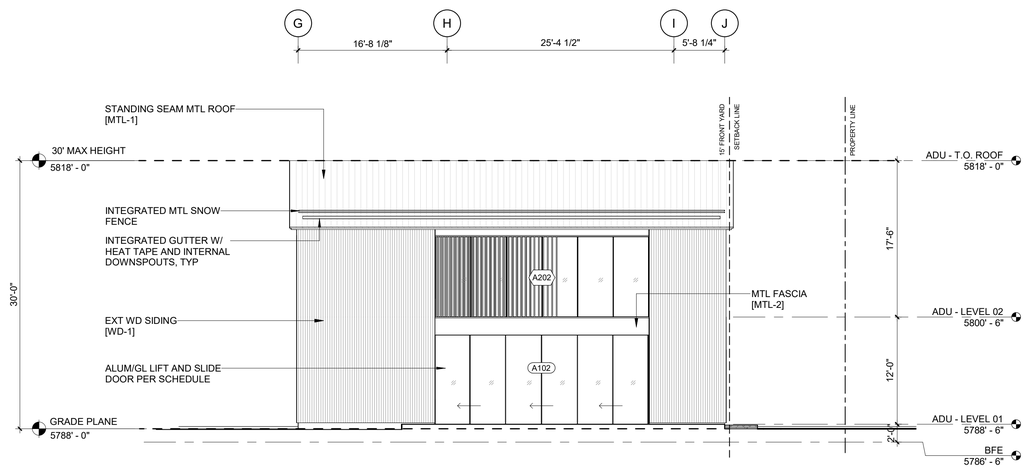
A-301

NOT FOR CONSTRUCTION

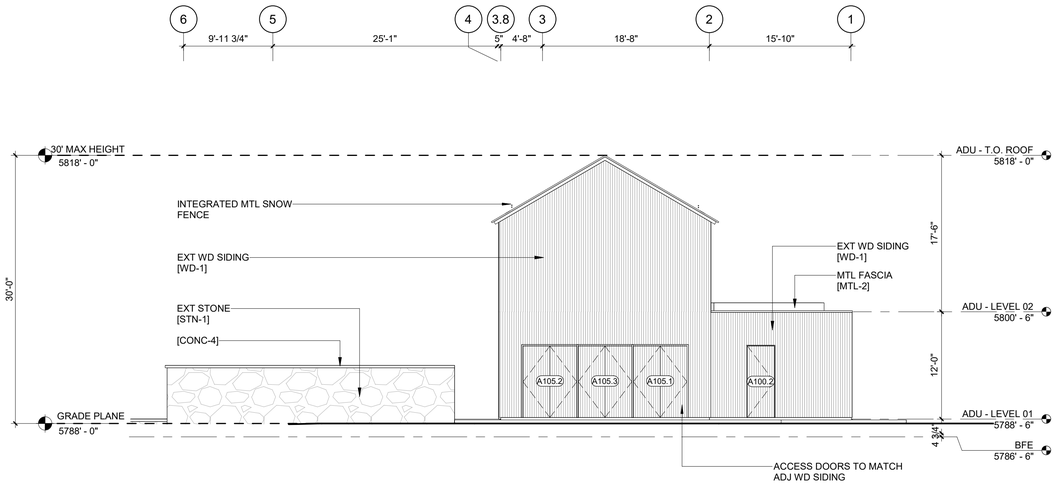
2/21/2023 4:22:13 PM



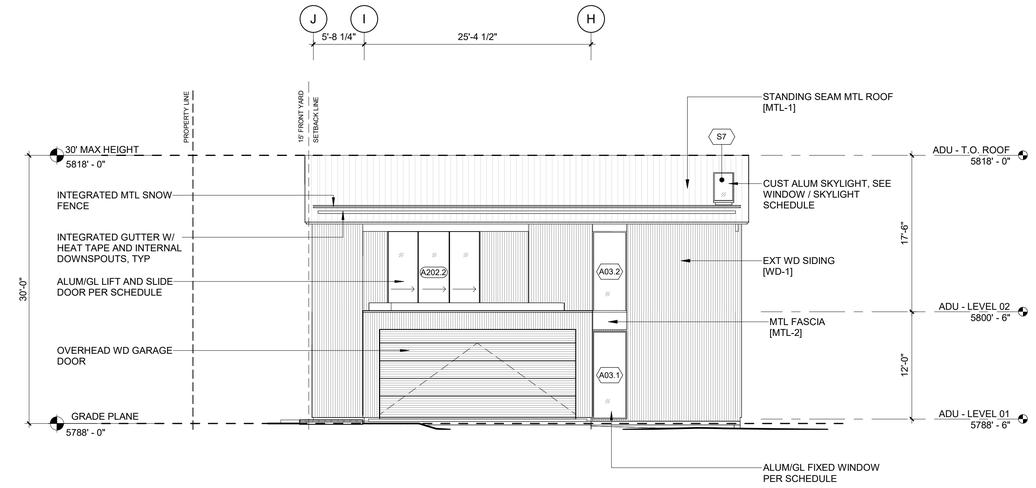
5 | 1/8" = 1'-0" | **ADU - ELEVATION / WEST**



2 | 1/8" = 1'-0" | **ADU - ELEVATION / SOUTH**



3 | 1/8" = 1'-0" | **ADU - ELEVATION / EAST**



1 | 1/8" = 1'-0" | **ADU - ELEVATION / NORTH**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

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SURVEYOR:

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TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

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TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

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2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
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TEL: 208.720.6432

LANDSCAPE ARCHITECT:

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TEL: 213.239 9700

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1001 W OAK BUILDING B SUITE 107
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TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

EXTERIOR ELEVATIONS / ADU

DRAWING NUMBER:

A-302

NOT FOR CONSTRUCTION

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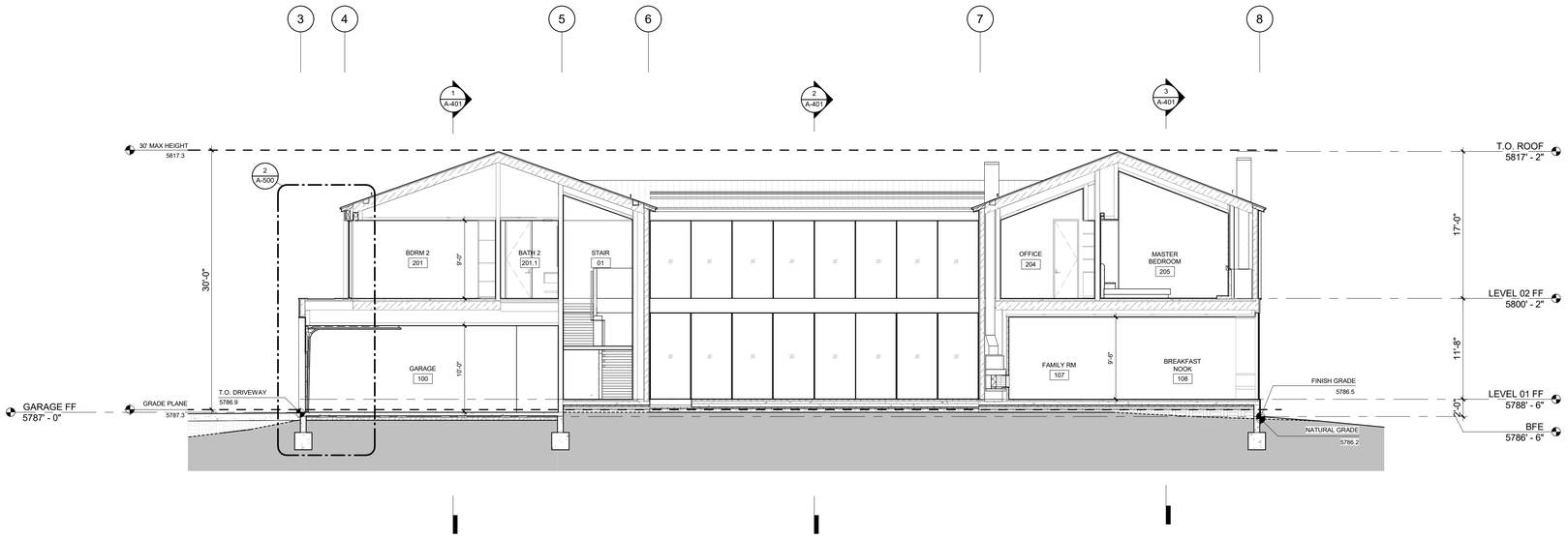
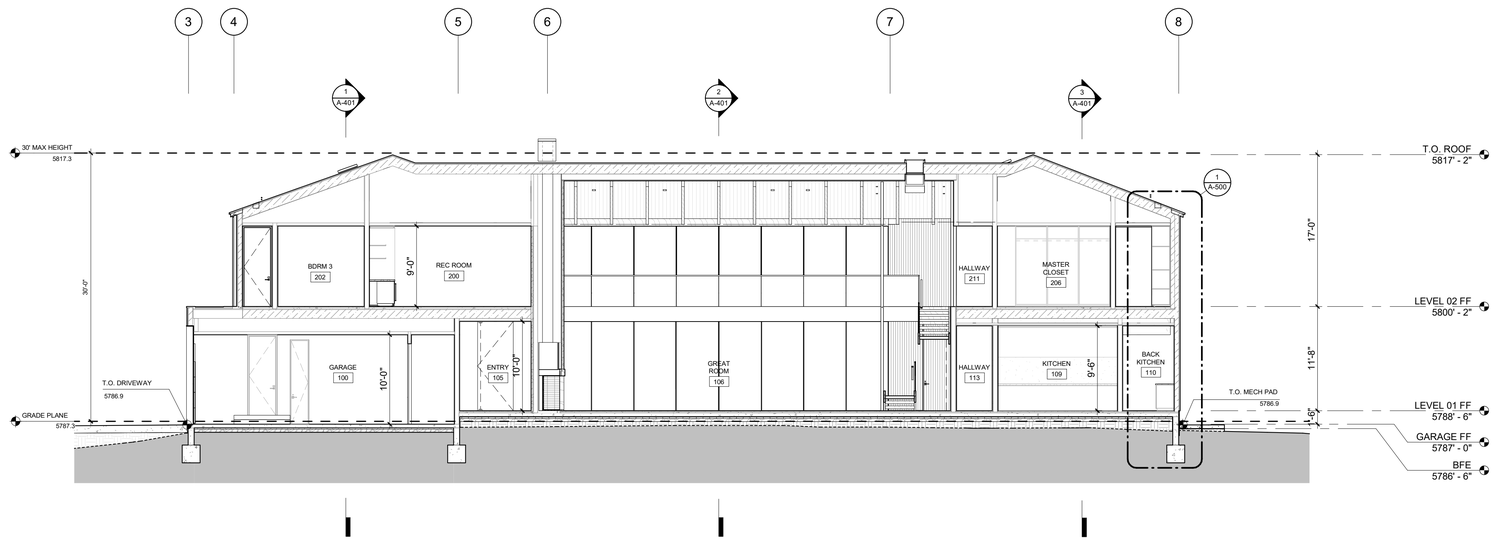


2 | 1/8" = 1'-0" | **BUILDING SECTION N-S 2**



1 | 1/8" = 1'-0" | **BUILDING SECTION N-S 1**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
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SURVEYOR:

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SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 - 100 BELL DRIVE
KETCHUM, IDAHO 83340
TEL: 208.726.9512

STRUCTURAL ENGINEER:

LFA
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239 9700

MEP ENGINEER:

CES ENGINEERING SERVICES, LLC
1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

BUILDING SECTIONS

DRAWING NUMBER:

A-400

NOT FOR CONSTRUCTION

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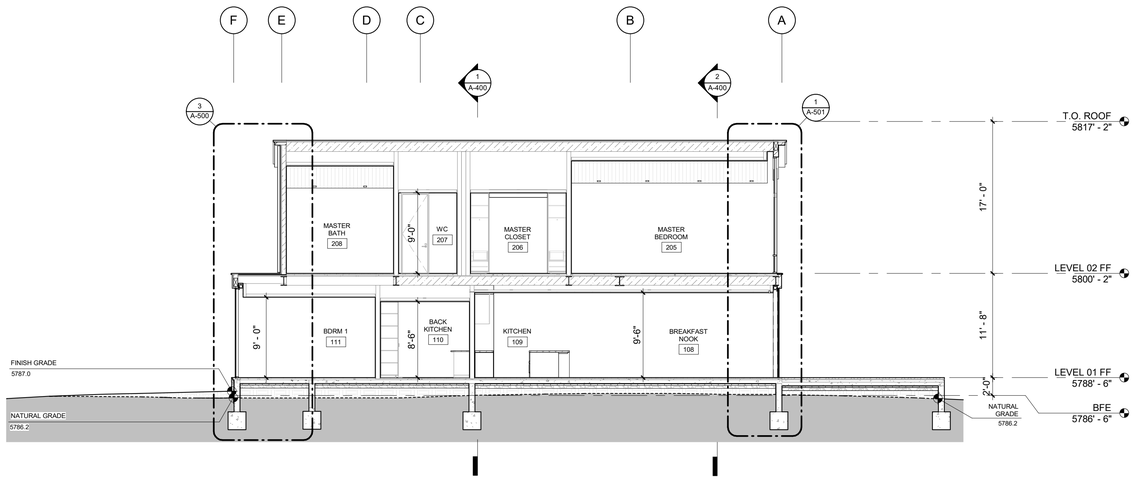
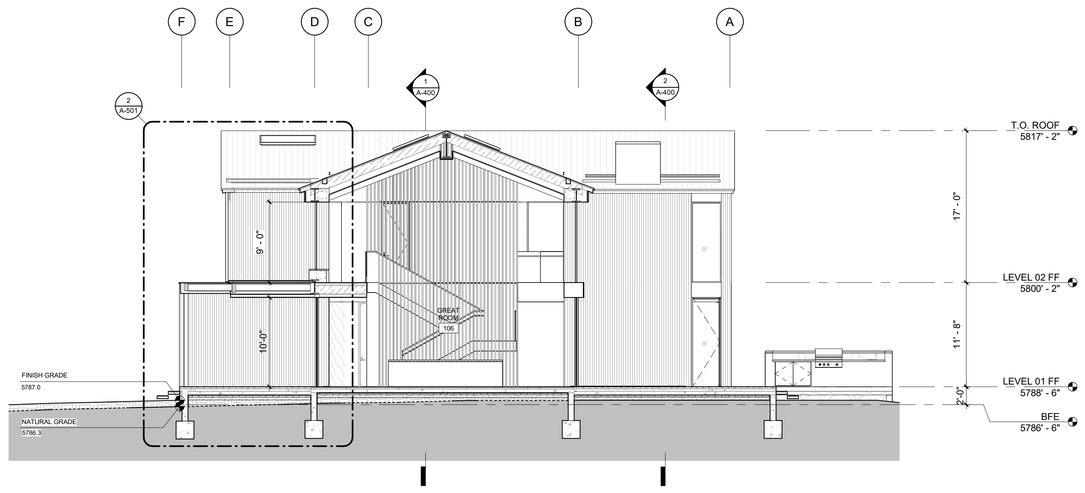
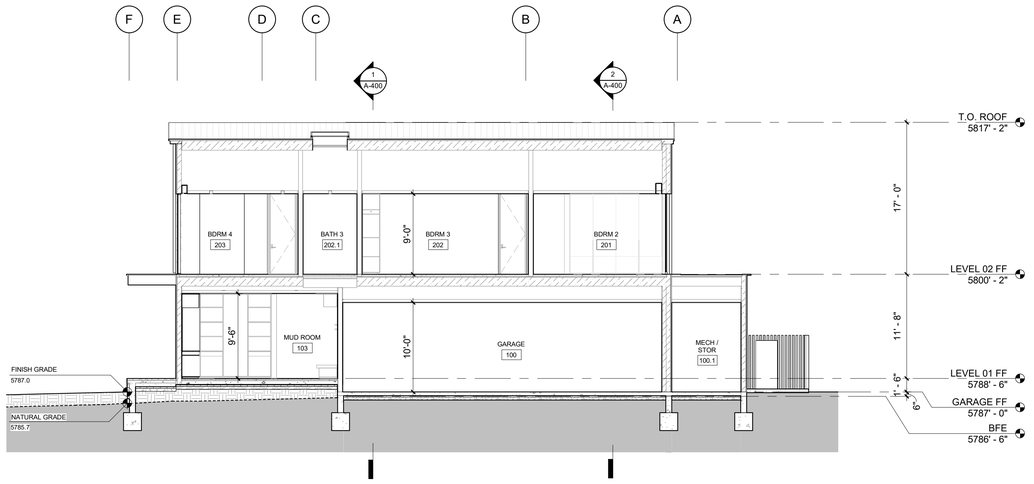


3 | 1/8" = 1'-0" | **BUILDING SECTION E-W 3**



2 | 1/8" = 1'-0" | **BUILDING SECTION E-W 2**



1 | 1/8" = 1'-0" | **BUILDING SECTION E-W 4**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

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TWIN FALLS, ID 83301
TEL: 208.736-8543

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BYLA
323 LEWIS STREET, SUITE N
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KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO DATE ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

BUILDING SECTIONS

DRAWING NUMBER:

A-401

NOT FOR CONSTRUCTION

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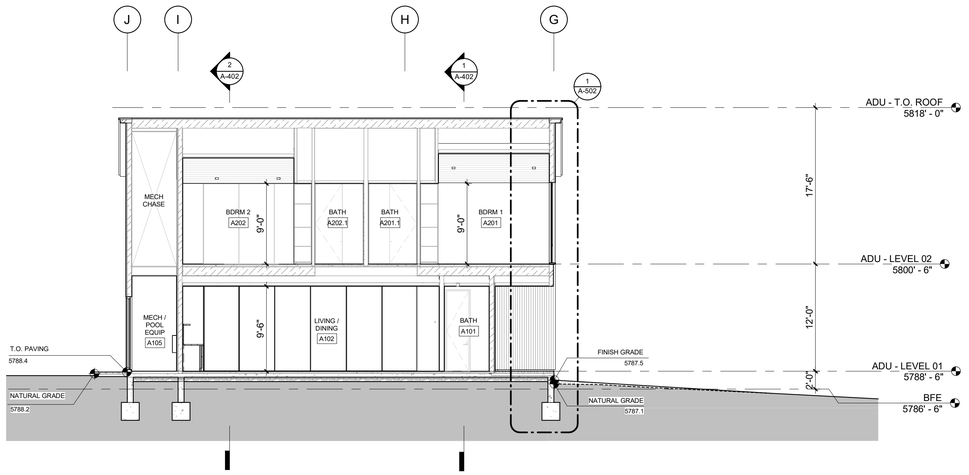
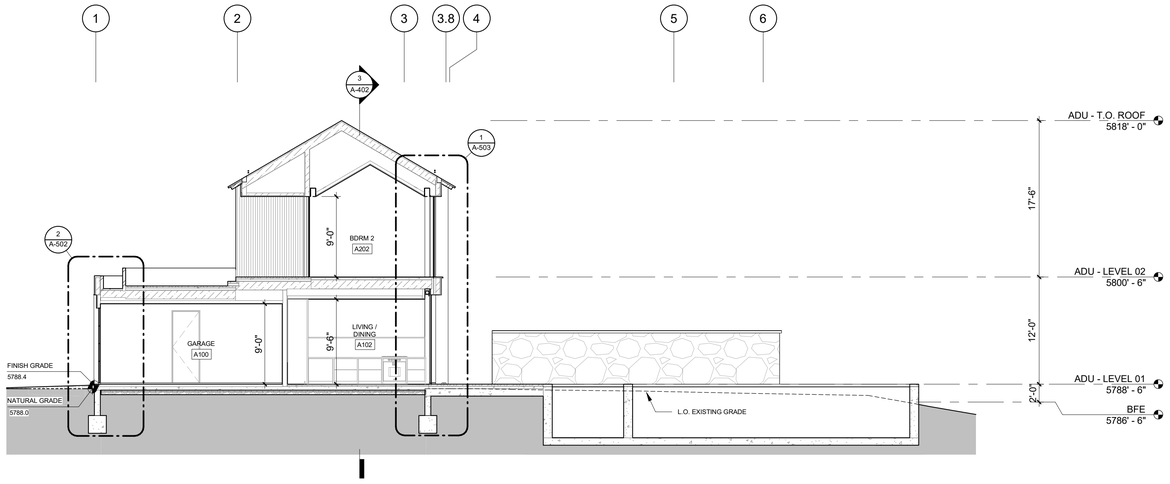
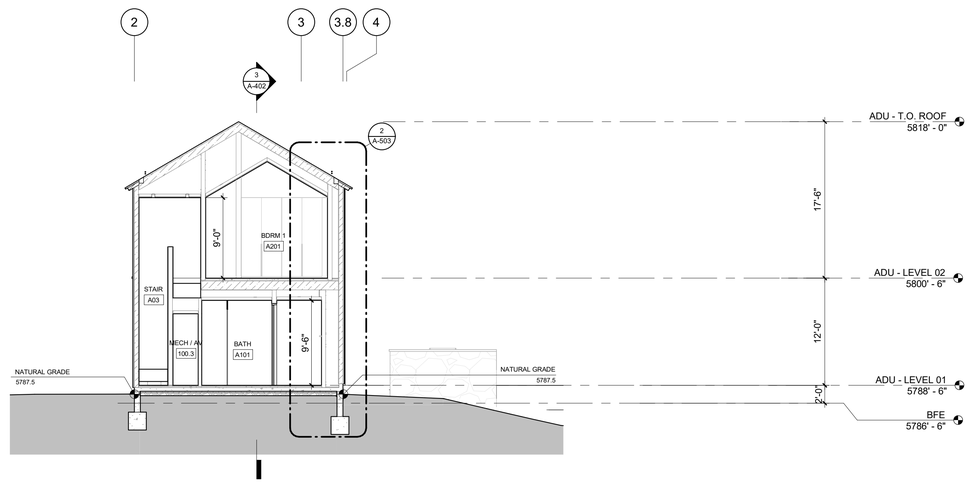


3 | 1/8" = 1'-0" | **ADU BUILDING SECTION E-W**



2 | 1/8" = 1'-0" | **ADU BUILDING SECTION N-S 2**



1 | 1/8" = 1'-0" | **ADU BUILDING SECTION N-S 1**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
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SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

BUILDING SECTIONS / ADU

DRAWING NUMBER:

A-402

NOT FOR CONSTRUCTION

2/2/2023 9:49:33 AM

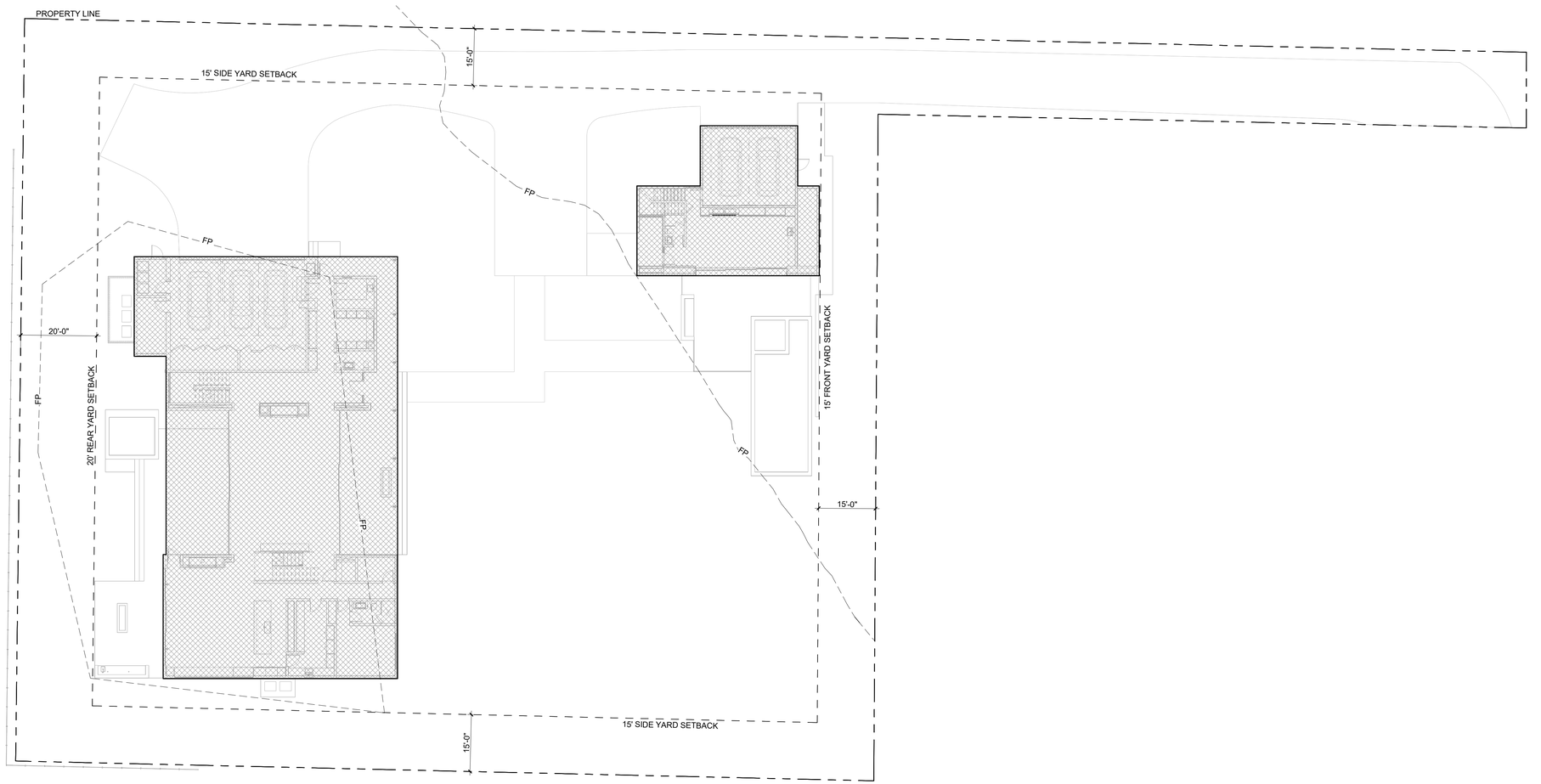
AREA OF BUILDING

17.08.020 TERMS DEFINED

BUILDING COVERAGE: THE TOTAL SQUARE FOOTAGE OF THE BUILDING FOUNDATION AND ALL HORIZONTAL PROJECTIONS WHICH CONSTITUTE A "BUILDING" AS DEFINED IN THIS SECTION, BUT NOT INCLUDING ROOF OVERHANGS THAT ARE THREE FEET OR LESS OR UNCOVERED DECKS LESS THAN 30 INCHES ABOVE GRADE. GARAGES AND GUEST HOMES SHALL BE INCLUDED IN BUILDING COVERAGE. THE LOT AREA USED TO DETERMINE BUILDING COVERAGE SHALL BE THAT AREA LANDWARD SIDE OF THE MEAN HIGH WATER MARK ON THE BIG WOOD RIVER, TRAIL CREEK AND WARM SPRINGS CREEK.

TOTAL LOT AREA (PER SURVEY) = 47,480 SF

TOTAL BUILDING COVERAGE (%) = (8,568 SF / 47,480 SF) X 100 = (18%)
MAX BUILDING COVERAGE FOR LR DISTRICT = 35%



1 | 1/16" = 1'-0" | **BUILDING COVERAGE**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

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EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER
#2201

N

DRAWING TITLE:
LOT COVERAGE

DRAWING NUMBER:
G-010

NOT FOR CONSTRUCTION

2/23/2023 2:08:53 PM

1 | MAIN HOUSE | EAST ELEVATION VIEW - FRONT

2 | MAIN HOUSE | NORTH-EAST VIEW - DRIVEWAY

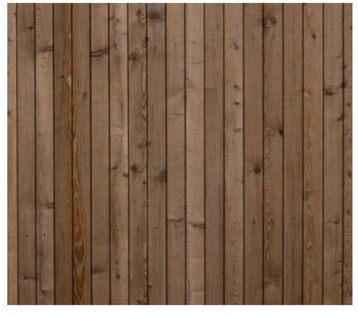
3 | MAIN HOUSE | WEST ELEVATION VIEW - REAR

4 | ADU | NORTH-EAST VIEW - DRIVEWAY

5 | ADU | NORTH-WEST VIEW - GUEST PARKING & ENTRY

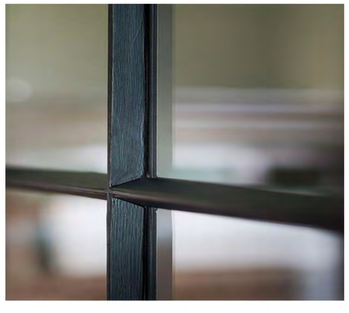
6 | ADU | SOUTH ELEVATION VIEW - POOL DECK

METAL: ROOF + FASCIAS

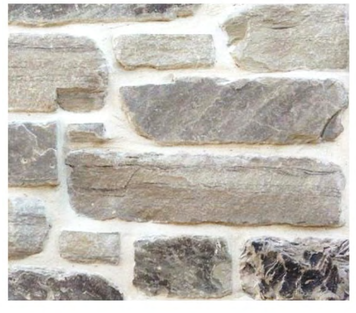


WOOD: RAINSCREEN FACADE / SCREENS

CONCRETE: BASE + STEPS



METAL WINDOWS



STONE: LANDSCAPE WALLS

5 | EXTERIOR MATERIALS

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

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270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO	DATE	ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

PERSPECTIVE VIEWS & MATERIALS

DRAWING NUMBER:

G-013

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MATERIAL LEGEND

MATERIAL	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	SIZE/DIM	SPECIES/COLOR	FINISH	COMMENTS
CONC-1	PAINTED CONCRETE FLOOR	MECHANICAL, AV ROOMS	CUSTOM	CUSTOM	VARIES	COLOR: TBD		
CONC-2	EPOXY CONCRETE	GARAGE FLOORS	ROCK SOLID FLOORING	CUSTOM	VARIES	COLOR: TBD	ESPARTIC 2-PART POLYUREA FINISH	1/8" SAWCUT JOINTS LOCATION PER ARCH
CONC-3	CAST IN PLACE CONCRETE	DRIVEWAY HARDSCAPE	DAYTON SUPERIOR	CUSTOM	VARIES	COLOR: TBD	TOP-CAST SURFACE RETARDER	1/8" SAWCUT JOINTS LOCATION PER ARCH
CONC-4	PRECAST CONCRETE	COPING AT SITE AND POOLS WALLS	CUSTOM	CUSTOM	VARIES	COLOR: TBD		
GL-1	LAMINATED GLASS W/ CLEAR PVB INTERLAYER	GUARDRAILS	PPG OR APPROVED EQ	STARPHIRE	1/2" THICK	CLEAR WHITE WATER	POLISHED	SIZE CRITICAL- FLAT POLISHED EDGES
GL-2	TEMPERED GLASS	FRAMELESS SHOWERS	PPG OR APPROVED EQ	STARPHIRE	3/8" THICK	CLEAR WHITE WATER	POLISED	SIZE CRITICAL- FLAT POLISHED EDGES
GL-3	MIRROR	BATHROOMS	CUSTOM	CUSTOM	1/4" THICK	-CLEAR WATER WHITE	-	SIZE CRITICAL- FLAT POLISHED EDGES
GWB-1	PAINTED DRYWALL FINISH	WALL,CEILINGS	BENJAMIN MOORE OR APPROVED EQ	AURA		TBD	LEVEL IV DRYWALL / FLAT PAINT	PROVIDE PRIMER AND 2 FINISH COATS
MTL-1	STANDING SEAM METAL ROOF	PITCHED ROOFS	METAL SALES OR APPROVED EQ	DOUBLE LOCK	18"	STANDARD COLOR (TBD)	TBD	CONCEALED FASTENERS
MTL-2	METAL WALL PANEL	EXTERIOR WALLS, FASCIAS, TRIMS	METAL SALES OR APPROVED EQ	FLATLOCK	VARIES	STANDARD COLOR (TBD)	MATTE	FLAT LOCK METAL WALL PANEL SYSTEM, INSTALL VERTICAL W/ MIN REVEAL PER MFR SPECS.
MTL-3	BRAKE METAL	FLASHING, GUTTERS, BASE TRIM	DREXEL OR EQ	-	22 GA, UNO	FACTORY FINISH KYNAR, LOW GLOSS MATTE	COLOR TBD,MATTE	COLOR TO MATCH ADJ WIN/DOOR FRAMES OR ADJ MTL ROOFING TYP.
MTL-4	PTD STEEL SHAPES / MISC. METALS / EXTERIOR	EXTERIOR MISC METALS	CUSTOM	CUSTOM		STAINLESS STEEL 316	PRIME & PAINTED, COLOR TBD	-STL SHAPES BARS & PLATES AS REQ'D
MTL-5	PTD STEEL SHAPES / MISC. METALS / INTERIOR	INTERIOR MISC METALS	CUSTOM	CUSTOM		COLD ROLLED STEEL		-STL SHAPES BARS & PLATESAS REQ'D, PROVIDE STAINLESS STEEL 316 WHERE EXTERIOR, TYP
MTL-6	BLACKENED STEEL SHAPES / MISC. METALS	FIREPLACES	CUSTOM	CUSTOM		COLD ROLLED STEEL		-STL SHAPES BARS & PLATES AS REQ'D
PLAS-1	INTERIOR PLASTER	WALLS, CEILINGS	TEXSTON OR EQ					
PLAS-2	WATERPROOF PLASTER	BATHROOM WALLS & CLG	TEXSTON OR EQ	HYDROLIME-125		VRFY W/ ARCH	SMOOTH TROWEL	
PLAS-3	EXTERIOR PLASTER	EXTERIOR CEILINGS	TEXSTON OR EQ	HYDROLIME-125		VRFY W/ ARCH	SMOOTH TROWEL	
STN-1	EXTERIOR STONE VENEER	SITE WALLS	TBD		FULL DEPTH			ALLOW $35/SF FOR MATERIAL
STN-2	STONE FLOORING / PAVING	EXTERIOR / INTERIOR FLOORING	MAIDENSTONE OR APPROVED EQ		2 1/8" THK (EXT) / 3/4" THK (INT); ASHLAR PATTERN	WINDSOR	BRUSHED	ALLOW $25/SF FOR MATERIAL
STN-3	INTERIOR STONE VENEER	FIREPLACE / FEATURE WALLS	TBD	CUSTOM				ALLOW $35/SF FOR MATERIAL
WD-1	EXTERIOR SIDING T & G	EXTERIOR FACADE	LUNAWOOD	LUNA TRIPLE	1 1/4" X 5 1/2" (13-18' LENGTHS)	THERMOWOOD (THERMALLY MODIFIED WD) / SPRUCE		SEAL ALL SIDES; ALLOW $20/SF
WD-2	EXTERIOR VERTICAL SLATS	EXTERIOR FACADE	LUNAWOOD	LUNA SHP2X4	1 5/8" X 3 5/8" (13-18' LENGTHS)	THERMOWOOD (THERMALLY MODIFIED WD) / PINE		SEAL ALL SIDES; ALLOW $20/SF
WD-3	EXTERIOR SOFFIT T & G	EXTERIOR SOFFITS	CUSTOM	CUSTOM	2X6			BLIND FASTENERS; ALLOW $20/SF FOR MATERIAL
WD-4	INTERIOR WOOD FLOORING	TYP INTERIOR WD FLOOR	MADERA OR APPROVED EQ	NO.087 ATELIER	10.25 IN WIDE PLANK (5/8" THK)	BELGIAN OAK	OIL	BLIND FASTENERS; ALLOW $20/SF FOR MATERIAL
WD-5	INTERIOR WOOD PANELS	TYP INTERIOR WALL PANELING, CASEWORK, TREADS	CUSTOM	CUSTOM	WIDTH VARIES (3/4" THK)	TBD	PREMIUM FINISH	ALLOW $20/SF FOR MATERIAL
WD-6	INTERIOR WOOD SLATS	GREAT ROOM STAIR	CUSTOM	CUSTOM			MATTE	CUST TRANSPARENT STAIN, TO MATCH INT WALL SIDING; ALLOIW $20/ SF
WD-7	INTERIOR WD CEILING	TYP WD INTERIOR CEILING	CUSTOM	CUSTOM	1X6 T&G - SOLID PLANKS		MATTE	CUST TRANSPARENT STAIN; ALLOW $20/SF
WD-8	WOOD ENTRY DOOR	ENTRY DOOR	CUSTOM	CUSTOM	1X6 T&G - SOLID PLANKS	TBD		COLOR PER ARCH TO MATCH SAMPLE

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
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SEAL:

NO DATE ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

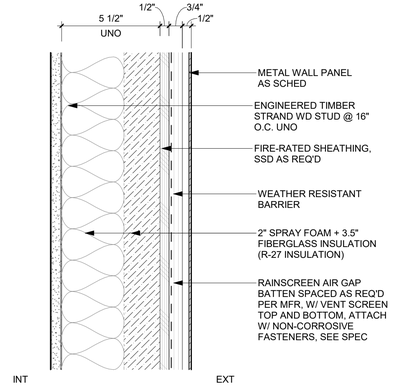
MATERIAL SCHEDULE

DRAWING NUMBER:

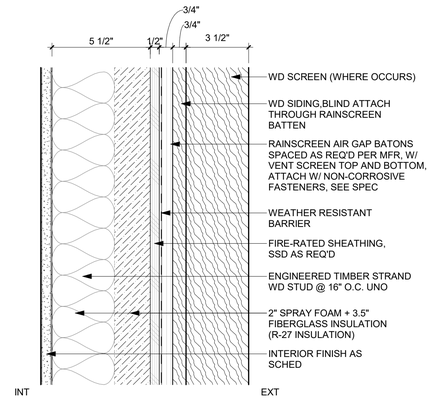
G-101

NOT FOR CONSTRUCTION

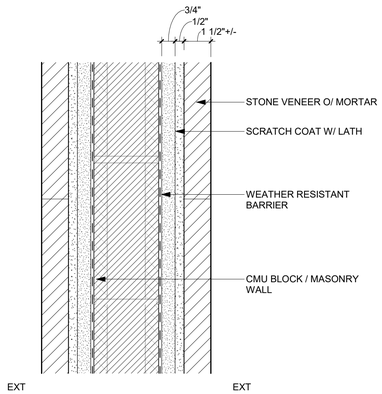
2/22/2023 9:05:46 AM



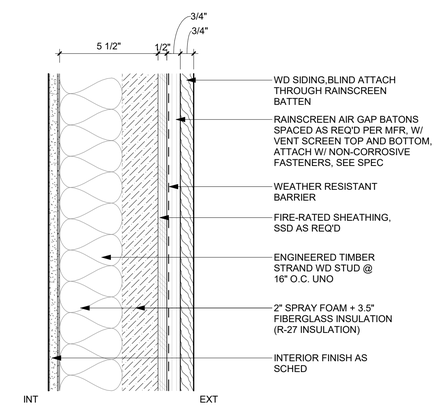
3 3" = 1'-0" **WALL TYPE E-3-METAL RAINSCREEN**



2 3" = 1'-0" **WALL TYPE E-2-EXTERIOR WOOD RAINSCREEN (W/ WD SLATS)**



4 3" = 1'-0" **WALL TYPE E-4-STONE VENEER / SITE WALLS**



1 3" = 1'-0" **WALL TYPE E-1-EXTERIOR WOOD RAINSCREEN**

BADGER RESIDENCE

OWNER:

121 BADGER LANE LLC
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD, UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

SURVEYOR:

GALENA ENGINEERING, INC.
317 NORTH RIVER STREET
HAILEY, ID 83333
TEL: 208.788.1705

ENVIRONMENTAL CONSULTANT:

SAWTOOTH ENVIRONMENTAL CONSULTING
P.O. BOX 2707 / 540 NORTH FIRST AVE
KETCHUM, ID 83340
TEL: 208.727.9748

HYDROLOGY / WATER ENGINEERING:

BROCKWAY ENGINEERING, INC.
2016 WASHINGTON ST NORTH, SUITE 4
TWIN FALLS, ID 83301
TEL: 208.736-8543

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

LANDSCAPE ARCHITECT:

BYLA
323 LEWIS STREET, SUITE N
KETCHUM, ID 83340
TEL: : 208.726.5907

CIVIL ENGINEER:

BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 - 100 BELL DRIVE
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TEL: 208.726.9512

STRUCTURAL ENGINEER:

LFA
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239 9700

MEP ENGINEER:

CES ENGINEERING SERVICES, LLC
1001 W OAK BUILDING B SUITE 107
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING DESIGN CONSULTANT:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

SEAL:

NO DATE ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

EXTERIOR WALL ASSEMBLY TYPES

DRAWING NUMBER:

G-200

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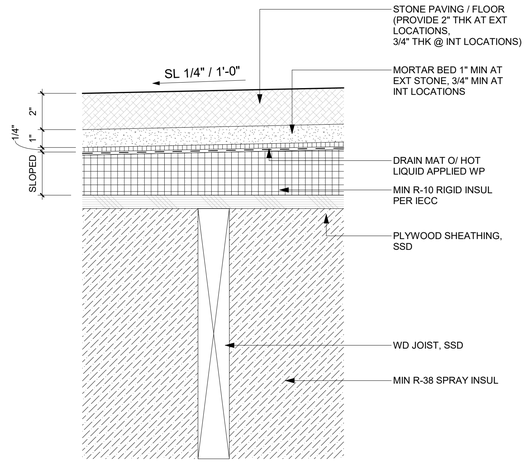
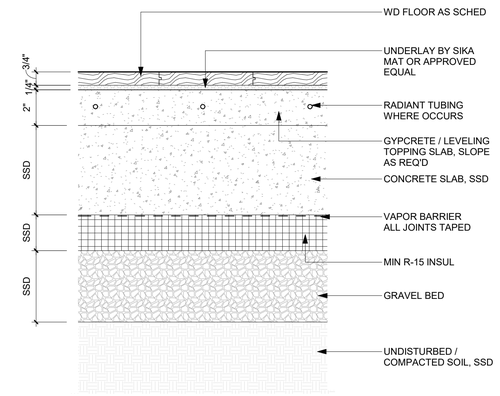
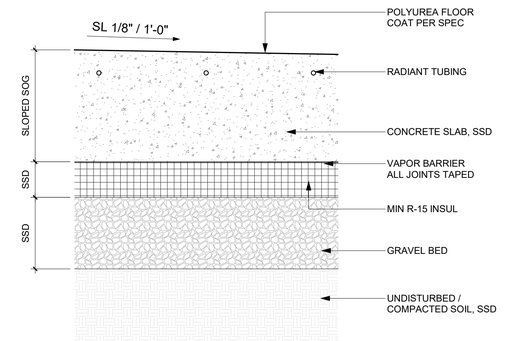
2/22/2023 9:06:40 AM



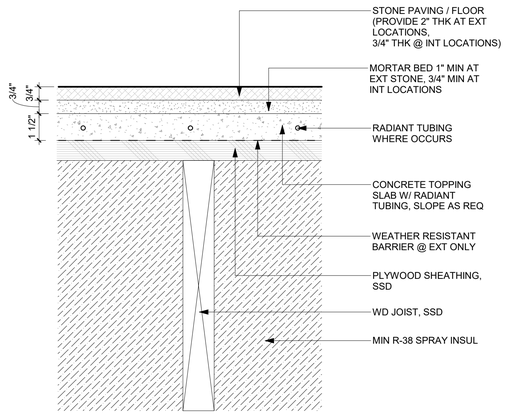
9 | 3" = 1'-0" | **FLOOR TYPE FL-6 PLYWD OVER WD LVL JOISTS W/ STONE TILE Copy 1**



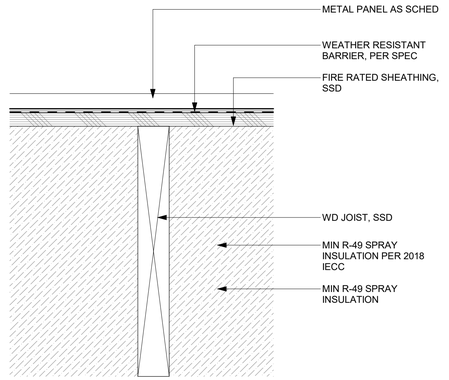
6 | 3" = 1'-0" | **FLOOR TYPE FL-3 SLAB ON GRADE W/ WD FLOORING Copy 1**



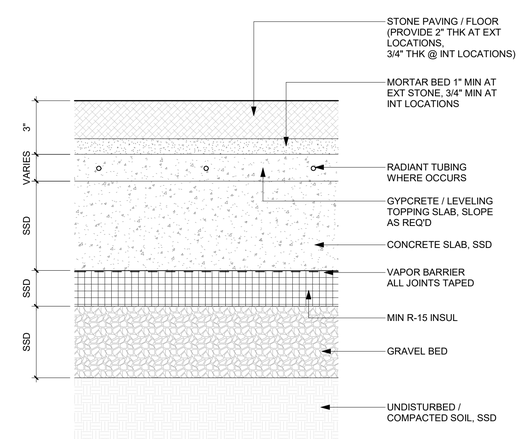
8 | 3" = 1'-0" | **FLOOR TYPE FL-5 CONCRETE SLAB ON GRADE - POLYUREA FLOOR FINISH**



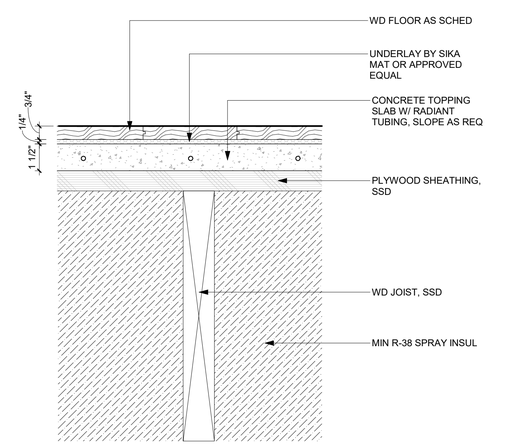
5 | 3" = 1'-0" | **FLOOR TYPE FL-2 PLYWD O/ WD JOISTS W/ STONE TILE**



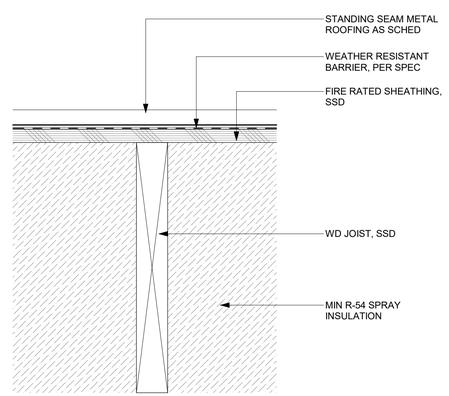
2 | 3" = 1'-0" | **ROOF TYPE R-2 FLAT PANEL ROOF / CANOPY**



7 | 3" = 1'-0" | **FLOOR TYPE FL-4 SLAB ON GRADE W/ STONE TILE Copy 1**



4 | 3" = 1'-0" | **FLOOR TYPE FL-1 PLYWD O/ WD JOISTS W/ WD FLOOR**



1 | 3" = 1'-0" | **ROOF TYPE R-1 STANDING SEAM ROOF**

BADGER RESIDENCE

OWNER:

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SURVEYOR:

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SEAL:

NO DATE ISSUE

PROJECT:

BADGER RESIDENCE

121 BADGER LANE
KETCHUM, ID 83340

PROJECT NUMBER

#2201

N

DRAWING TITLE:

ROOF AND FLOOR ASSEMBLY TYPES

DRAWING NUMBER:

G-201

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