



\*W3236775\*

**MASTER DEVELOPMENT AGREEMENT FOR  
Dixon Creek Park Development**

E# 3236775 PG 1 OF 233  
LEANN H KILTS, WEBER CTY. RECORDER  
18-MAY-22 151 PM FEE \$40.00 TN  
REC FOR: DIXON CREEK PARK DEVELOP

THIS MASTER DEVELOPMENT AGREEMENT is made and entered as of this  
17<sup>th</sup> of May, 2022 by and between HARRISVILLE CITY and the undersigned  
MASTER DEVELOPER.

**RECITALS**

- A. The capitalized terms used in this MDA are defined in Section 1.2, below.
- B. Master Developer is under a contract to purchase and will own as of the Effective Date the Property and is developing the Project on the Property.
- C. Contemporaneously with the approval of this MDA the City has approved the Master Plan.
- D. Contemporaneously with the approval of this MDA the City has zoned the property MU-C Dixon Creek Park Zone.
- E. The City finds that this MDA and the Master Plan conform with the intent of the City's General Plan.
- F. The City has processed this MDA, the Zoning, and the Master Plan pursuant to the applicable provisions of § 10-9a-501, *et seq.*, of the Act as a land use regulation including holding hearings on the MDA, the Zoning and the Master Plan before the Planning Commission and the City Council.
- G. Master Developer and the City desire that the Property be developed in a unified and consistent fashion pursuant to the Master Plan.

H. The Parties acknowledge that development of the Property pursuant to this MDA will result in significant planning and economic benefits to the City, and its residents by, among other things requiring orderly development of the Property as a master planned development and increasing property tax and other revenues to the community based on improvements to be constructed on the Property.

I. The Parties desire to enter into this MDA to specify the rights and responsibilities of Master Developer to develop the Property as expressed in this MDA and the rights and responsibilities of the City to allow and regulate such development pursuant to the requirements of this MDA.

J. The Parties understand and intend that this MDA is a “development agreement” within the meaning of the Act and entered into pursuant to the terms of the Act.

NOW, THEREFORE, in consideration of the foregoing Recitals, the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby conclusively acknowledged, the City and Master Developer hereby agree to the following:

## TERMS

### 1. **Incorporation of Recitals and Exhibits/Definitions.**

1.1. **Incorporation.** The foregoing Recitals and Exhibits “A-L” whether or not specifically referenced herein are hereby incorporated into this MDA.

1.2. **Definitions.** As used in this MDA, the words and phrases specified below shall have the following meanings:

1.2.1. **Act** means the Land Use, Development, and Management Act, Utah Code Ann. § 10-9a-101 (2020), *et seq.*

1.2.2. **Administrator** means the person designated by the City as the Administrator of this MDA.

1.2.3. **Applicant** means a person or entity submitting a Development Application.

1.2.4. **Buildout** means the completion of all the development on the entire Harrisville Park Development Project in accordance with the approved plans.

1.2.5. **City** means Harrisville City, a Utah municipality.

1.2.6. **City Consultants** means those outside consultants employed by the City in various specialized disciplines such as engineering, planning, traffic, hydrology, or drainage for reviewing certain aspects of the development of the Project.

1.2.7. **City's Future Laws** means the ordinances, policies, standards, and procedures which may be in effect as of a particular time in the future when a Development Application is submitted for a part of the Project and which may or may not be applicable to the Development Application depending upon the provisions of this MDA.

1.2.8. **City's Vested Laws** means the ordinances, policies, standards, zoning, and procedures of the City in effect as of the date the City approves this MDA.

1.2.9. **Commercial Site Plan** means an application for Intended Uses other than those for purely Residential Dwelling Units.

1.2.10. **Council** means the elected City Council of the City.

1.2.11. **Default** means a material breach of this MDA as specified herein.

1.2.12. **Denial** means a formal denial issued by the final administrative decision-making body of the City for a Development Application but does not include review comments or "redlines" by City staff.

1.2.13. **Design and Site Standards** means those standards for the design, look, and feel of the Project more fully specified in Exhibit “E”.

1.2.14. **Development** means the development of a portion of the Property pursuant to an approved Development Application.

1.2.15. **Development Area** means one of the areas that are a part of the Project as conceptually illustrated in the Master Plan.

1.2.16. **Development Application** means an application to the City for development of a portion of the Project including a Subdivision or any other permit, certificate or other authorization from the City required for development of the Project.

1.2.17. **Development Report** means a report containing the information specified in §§ 2.6.9 – 2.6.11.

1.2.18. **Effective Date** means the date that this MDA becomes effective as specified in § 27, below.

1.2.19. **Final Plat** means the recordable map or other graphical representation of land prepared in accordance with the Act or any successor provision, and approved by the City, effectuating a Subdivision of any portion of the Project.

1.2.20. **Four Mile SSD** means a special service district of the City to provide approved public services to the Project, including but not limited to secondary water (pressurized irrigation), if Developer is unable to arrange for such water through Pineview Water District.

1.2.21. **Intended Uses** means the use of all or portions of the Project for single-family and multi-family residential units, restaurants, public facilities, businesses, commercial areas, professional and other offices, services, open spaces, parks, trails, and other

uses as more fully specified in Exhibit “C”.

1.2.22. **Master Developer** means The Scott Group, LLC (as to 40%), The Myers Group, LLC (as to 20%), SDS7, LLC (as to 20%), and Bailey V Properties, LLC (as to 20%).

1.2.23. **Master Plan** means the conceptual layout for Commercial Development, Residential Dwelling Units, Open Space, and Public Infrastructure for the Project.

1.2.24. **Maximum Residential Units** means the maximum number of Residential Dwelling Units that may be developed on the Property, as detailed in Section 2.2 below, consistent with the Property zoning and as generally depicted in the Master Plan.

1.2.25. **MDA** means this Master Development Agreement including all the Exhibits.

1.2.26. **Multi-Family Site Plan** means a site plan for a multi-family Development where no Subdivision is required.

1.2.27. **Notice** means any notice to or from any Party to this MDA that is either required or permitted to be given to another party.

1.2.28. **Open Space** shall have the meaning specified in § 11.01.060 of the City’s Municipal Code.

1.2.29. **Outsourcing** means the process of the City contracting with City Consultants or paying overtime to City employees to provide technical support in the review and approval of the various aspects of a Development Application as is more fully set out in this MDA.

1.2.30. **Party/Parties** means, in the singular, Master Developer or the City; in the plural Master Developer and the City.

1.2.31. **Planning Commission** means the City's Planning Commission.

1.2.32. **Project** means the total development to be constructed on the Property pursuant to this MDA with the associated public and private facilities, and all the other aspects approved as part of this MDA.

1.2.33. **Property** means the real property owned by and to be developed by Master Developer more fully described in Exhibit "A".

1.2.34. **PTOS Plan** means the plan for developing, managing, preserving improving the neighborhood parks, trails, and open space in the Project as more fully specified in Exhibit "\_\_\_".

1.2.35. **Residential Dwelling Unit** means a structure or portion thereof designed and intended for use as a single-family residence, an attached residence, including a condominium and town house, as illustrated on the Master Plan.

1.2.36. **Standards Deviations** means those deviations from existing City development, design, engineering, and other standards, including but not limited to those standards that are included in the City's Vested Laws, which are subject to the provisions of §§ 2.1 and 5.1, below.

1.2.37. **Sub-developer** means a person or an entity not "related" (as defined by § 165 of the Internal Revenue Code) to Master Developer which purchases a Development Area for development.

1.2.38. **Subdivision** means the division of any portion of the Project into developable lots pursuant to the Act and/or the Zoning Ordinance.

1.2.39. **Subdivision Application** means the application to create a Subdivision.

1.2.40. **Zoning** means the MU-C Dixon Creek Zone for the Property adopted by the City on contemporaneously with the approval of this MDA.

1.2.41. **Zoning Ordinance** means the City's Land Use and Development Ordinance adopted pursuant to the Act that was in effect as of the date of this MDA as a part of the City's Vested Laws.

## 2. **Development of the Project.**

2.1. Compliance with the Master Plan, Design Standards, and this MDA. Development of the Project shall be in accordance with the City's Vested Laws, the City's Future Laws (to the extent that these are applicable as otherwise specified in this MDA), the Master Plan, the Design Standards, and this MDA.

2.2. Maximum Residential Units/Intended Uses. At Buildout of the Project, Master Developer shall be entitled to have developed the Maximum Residential Units of 215 total. Four (4) townhome units are currently and provisionally planned in Phase 5 in an Excluded Development Area, conditional on a resolution and remapping of the current flood plain reasonable acceptable to the City.

2.3. Limitation and No Guarantee. Master Developer acknowledges that the development of the Maximum Residential Units and every other aspect of the Master Plan requires that each Development Application comply with the City's Vested Laws, the Master Plan, the Design Standards, and this MDA. The City's entry into this MDA does not guarantee that the Master Developer will be able to construct the Maximum Residential Units or any other aspect of the Project until and unless all the applicable requirements of the City's Vested Laws are complied with.

2.4. Excluded Development Area. The Parties acknowledge that development

in the Excluded Development Area is currently and potentially impacted by issues related to flood plain and other issues. It is Parties' intent, and current agreement, as and when those issues are resolved, to pursue and allow development in the Excluded Development Area as illustrated in the Master Plan, and under the terms of this MDA, with the potential addition of up to four (4) Residential Units to the Maximum Residential Units identified in Section 2.2, subject to such amendments of this MDA as may reasonably be required.

2.5. Design Standards for Commercial Development. The Parties acknowledge that the precise design standards for the commercial areas on the Master Plan are not yet completed. The Design and Site Standards, Exhibit "E", includes some renderings and other details and design concepts. The Parties shall work cooperatively to amend this MDA within a period consistent with the sequencing outlined in § 2.5.4, to include detailed and reasonable design standards for the commercial uses and to work toward final building exterior designs.

2.5.1. Sequencing and Relationship of Residential and Commercial Uses.  
General Statement. The Parties acknowledge that, separate from and related to the City's interest in the development of Residential Uses within the Development, the City has an interest in the development of areas designated on the Master Plan to include commercial ("Retail/Office") units, and recognizing that such development is subject to market/economic forces beyond the control of Master Developer, desires certain assurances that Master Developer is and will remain committed to develop the commercial area in a timely manner. To that specific end, the Parties agree to the following sequencing plan and related mutual goals:

2.5.2. Prompt Platting/Approval. Master Developer will use its best commercially reasonable efforts actively and promptly to pursue the platting and approval of all residential subdivisions within the Development, including the layout of roads and general



infrastructure within those subdivisions, with the goal of satisfying all requirements for approvals within a period of not more than 12 months from the Effective Date of this Agreement. For its part, the City will actively and promptly engage in all reasonable and required review and analysis of Master Developer's subdivision applications with the goal of providing required approvals within the stated target period.

2.5.3. Infrastructure Development. This Agreement is for vesting zoning and is not for subdivision approval. A separate agreement will be required as part of subdivision approval that will more specifically govern aspects of the subdivision and its improvements. Upon approval of all subdivisions by all governmental entities necessary to the approval process, and subject at all times to the requirements and reservations outlined below, Master Developer will promptly and actively, as commercially reasonable, pursue the development and installation of all infrastructure for the entire Development, beginning with the excavation and development of roadways and, conditional upon approval by the applicable utility, continuing with the installation of electric, sewer, water (including secondary water) and cable or fiber lines. Assuming necessary approvals from the City and all utilities, Master Developer projects, without guarantee, completion of residential infrastructure within 36 months of approval, with appropriate and reasonable adjustments to that timeframe for any delays in approvals.

2.5.4. Commercial Buildings Design. Separately, Master Developer and the City, through its Planning Commission, will actively and in good faith engage in such charrettes as may be necessary to finalize acceptable architectural designs and drawings for commercial retail/office building, to be constructed in locations generally consistent with the conceptual site plan designs presented by Master Developer within the area of the Master Plan

designated for that unit. The Parties will cooperate in that process with a mutual and agreed goal of final and approved design and drawings exclusive of tenant-related work in the commercial buildings, by no later than six (6) months following the termination of the lease on the Harrisville Public Works Building located at 1385 N. Washington Blvd Harrisville, Utah.

2.5.5. Commercial Building Sequencing. Master Developer shall commence development and construction of the commercial building not later than 12 months following the termination of the above reference lease.

### 3. Vested Rights.

3.1. Vested Rights Granted by Approval of this MDA. To the maximum extent permissible under the laws of Utah and the United States and at equity, the Parties intend that this MDA grants Master Developer all rights to develop the Project in fulfillment of this MDA, the City's Vested Laws, the Zoning, and the Master Plan, except as specifically provided herein. The Parties specifically intend that this MDA grant to Master Developer "vested rights" as that term is construed in Utah's common law and pursuant to § 10-9a-509 of the Act.

3.2. Exceptions. The restrictions on the applicability of the City's Future Laws to the Project as specified in § 3.1 are subject to only the following exceptions:

3.3. Master Developer Agreement. City's Future Laws that Master Developer agrees in writing to the application thereof to the Project;

3.3.1. State and Federal Compliance. City's Future Laws which are generally applicable to all properties in the City, and which are required to comply with State and Federal laws and regulations affecting the Project;

3.3.2. Codes. Any City's Future Laws that are updates or amendments to existing building, plumbing, mechanical, electrical, dangerous buildings, drainage, flood plain

or similar construction or safety related codes, such as the International Building Code, the APWA Specifications, AAHSTO Standards, the Manual on Uniform Traffic Control Devices, the International Residential Code or similar standards that are generated by a nationally or statewide recognized construction/safety organization, or by the State or Federal governments and are required to meet legitimate concerns related to public health, safety or welfare;

3.3.3. Regulations of other service providers. Any changes in laws, rules or regulations of any other entity that provides services to the Project.

3.3.4. Taxes. Taxes, or modifications thereto, so long as such taxes are lawfully imposed and charged uniformly by the City to all properties, applications, persons, and entities similarly situated;

3.3.5. Fees. Changes to the amounts of fees for the processing of Development Applications that are generally applicable to all development within the City (or a portion of the City as specified in the lawfully adopted fee schedule) and which are adopted pursuant to State law;

3.3.6. Impact Fees. Impact Fees or modifications thereto which are lawfully adopted, and imposed by the City and which meet all requirements of the U. S. Constitution, Utah Constitution, law, and applicable statutes, including but not limited to Utah Code Ann. § 11-36a-101 (2020), *et seq.*;

3.3.7. Planning and Zoning Modification. Changes by the City to its planning principles and design standards, provided that such changes do not work to reduce the Maximum Residential Units, are generally applicable across the entire City and do not materially and unreasonably increase the costs or net financial results of any Development Area; or

3.3.8. Compelling, Countervailing Interest. Laws, rules, or regulations that the City's land use authority finds on the record, are necessary to avoid jeopardizing a compelling, countervailing public interest pursuant to Utah Code Ann. § 10-9a-509(1)(a)(i) (2020).

4. Term of Agreement This MDA shall expire on December 31, 2032. If Master Developer has not been declared to be currently in Default as of December 31, 2032 (and if any such Default is not being cured), then this MDA shall be automatically extended until December 31, 2037. This MDA shall also terminate automatically at Buildout.

5. Public Infrastructure.

5.1. Construction by Master Developer. Master Developer shall have the right and the obligation to construct or cause to be constructed and installed all Public Infrastructure reasonably and lawfully required as a condition of approval of the Development Application. The Public Infrastructure shall be designed and constructed in Compliance with all applicable standards in the City's Vested Laws and, also, with any other Federal, State, or County laws, rules, or regulations. The Public Infrastructure shall be consistent with and fulfill the purposes of adopted plans for such infrastructure that are a part of the City's Vested Laws.

5.2. Security. If and to the extent required by the City's Vested Laws, unless otherwise provided by the Act, security for any required improvements shall be provided in a form acceptable to the City as specified in the City's Vested Laws. Partial releases of any such required security shall be made as work progresses based on the City's Vested Laws and conjunction with a subdivision improvement agreement.

6. Parks, Trails and Open Space. Master Developer shall be responsible for dedicating, and the City shall be responsible for creating and improving the land for parks, trails

and open space in the Project as specified in the PTOS Plan as Exhibit “\_\_\_” attached hereto and incorporated herein by this reference.

7. **Off-Site Improvements.** Master Developer has acquired a ca. 0.60 parcel of property from the City contiguous with Master Developer’s property on its northeast margin, bordering Washington Boulevard. The City’s present Public Works Building is presently situated on this parcel and will continue to be operated as the Public Works Building pursuant to a written lease agreement, which lease agreement provides, *inter alia*, that the City will operate, maintain, insure, and hold Master Developer harmless and defend against claims arising during the City’s occupancy of the parcel and its improvements. The City is developing a replacement site and building to house its public works and other functions, at its own discretion. Upon removal of its public works from the parcel and its improvements to the new location, Master Developer shall, at its own expense, construct an access road across the parcel to the parks, trails, and open space referred to in the next prior section, with access to and from Washington Boulevard, to be developed and built in consultation with UDOT and any other applicable government agencies, the City agreeing hereby to assist in those consultations in good faith. Upon development of the access road, Master Developer shall dedicate the access road to the City.

8. **Application Under City’s Future Laws.** Without waiving any rights granted by this MDA, Master Developer may at any time, choose to submit a Development Application for all or part of the Project under the City’s Future Laws in effect at the time of the Development Application so long as Master Developer is not in current breach of this Agreement.

9. **Default.**

9.1 **Notice.** If Master Developer or a Sub-developer or the City fails to

perform their respective obligations hereunder or to comply with the terms hereof, the Party believing that a Default has occurred shall provide Notice to the other Party. If the City believes that the Default has been committed by a Sub-developer, then the City shall also provide a courtesy copy of the Notice to Master Developer.

9.2 Contents of the Notice of Default. The Notice of Default shall:

9.2.1 Specific Claim. Specify the claimed event of Default;

9.2.2 Applicable Provisions. Identify with particularity the provisions of any applicable law, rule, regulation, or provision of this MDA that is claimed to be in Default;

9.2.3 Materiality. Identify why the Default is claimed to be material; and

9.2.4 Optional Cure. If the City chooses, in its discretion, it may propose a method and time for curing the Default which shall be of no less than thirty (30) calendar days duration.

9.3 Meet and Confer, Mediation, Arbitration. Upon the issuance of a Notice of Default the parties shall engage in the “Meet and Confer” and “Mediation” processes. If the claimed Default is subject to Arbitration, then the parties shall follow such processes.

9.4 Remedies. If the parties are not able to resolve the Default by “Meet and Confer” or by “Mediation”, and if the Default is not subject to arbitration, then the parties may have the following remedies:

9.4.1 Law and Equity. All rights and remedies available at law and in equity, including, but not limited to, injunctive relief and/or specific performance.

9.4.2 Security. The right to draw on any security posted or provided

in connection with the Project and relating to remedying of the Default.

9.4.3 Future Approvals. The right to withhold all further reviews, approvals, licenses, building permits and/or other permits for development of the Project in the case of a default by Master Developer, or in the case of a default by a Sub-developer, development of those Development Areas owned by the Sub-developer until the Default has been cured or a bond has been posted to secure satisfaction of the default. Building permits or Certificates of Occupancy may not be withheld from any Development Area sold to a Sub-developer based on any Default of the Master Developer unless that Default of the Master Developer is such that the Public Infrastructure required to service a Development Area owned by a Sub-Developer is not available to service the Development Area. Nor shall any Default by a Sub-developer permit the withholding of any Development Applications for Master Developer or any other Sub-developer that is not in Default. A subdivision improvement agreement is required as part of subdivision approval in a separate action and form from this Agreement. The rights and remedies in the subdivision improvements agreement govern over this Agreement, and in case of conflict the stricter applies as determined by the City.

9.5 Public Meeting. Before any remedy in § 9.4 may be imposed by the City, the party allegedly in Default shall be afforded the right to attend a public meeting before the City Council and address the City Council regarding the claimed Default.

9.6 Emergency Defaults. Anything in this MDA notwithstanding, if the City Council finds on the record that a default materially impairs a compelling, countervailing interest of the City and that any delays in imposing such a default would also impair a compelling, countervailing interest of the City, then the City shall give Notice to Master Developer and/or any applicable Sub-developer of any public meeting at which an emergency default is to be

considered and the Master Developer and/or any applicable Sub-developer shall be allowed to address the City Council at that meeting regarding the claimed emergency Default.

9.7 Extended Cure Period. If any Default cannot be reasonably cured within thirty (30) calendar days, then such cure period shall be extended so long as the defaulting party is pursuing a cure with reasonable diligence.

9.8 Default of Assignee. A default of any obligations assumed by an assignee shall not be deemed a default of Master Developer.

9.9 Limitation on Recovery for Default – No Damages. Anything in this MDA notwithstanding, no Party shall be entitled to any claim for any monetary damages as a result of any breach of this MDA and each Party waives any claims thereto. The sole remedy available to Master Developer or any Sub-developer shall be that of specific performance.

10 Notices. All notices required or permitted under this MDA shall, in addition to any other means of transmission, be given in writing by certified mail and regular mail to the following address:

**To the Master Developer:**

**Harrisville Park Associates, LLC  
335 W Sunset Cir  
Centerville, UT 84014**

**With a Copy to:**

**Harrisville City  
363 West Independence Blvd  
Harrisville, UT 84404**

10.1 Effectiveness of Notice. Except as otherwise provided in this MDA, each



Notice shall be effective and shall be deemed delivered on the earlier of:

10.1.1 Hand Delivery. Its actual receipt, if delivered personally, by courier service, or by facsimile provided that a copy of the facsimile Notice is mailed or personally delivered as set forth herein on the same day and the sending party has confirmation of transmission receipt of the Notice. If the copy is not sent on the same day, then notice shall be deemed effective the date that the mailing or personal delivery occurs.

10.1.2 Electronic Delivery. Its actual receipt if delivered electronically by email provided that a copy of the email is printed out in physical form and mailed or personally delivered as set forth herein on the same day and the sending party has an electronic receipt of the delivery of the Notice. If the copy is not sent on the same day, then notice shall be deemed effective the date that the mailing or personal delivery occurs.

10.1.3 Mailing. On the day the Notice is postmarked for mailing, postage prepaid, by First Class or Certified United States Mail and actually deposited in or delivered to the United States Mail. Any party may change its address for Notice under this MDA by giving written Notice to the other party in accordance with the provisions of this Section.

11. **Secondary Water/Consent to Four Mile SSD**. Master Developer shall be responsible to furnish sufficient water rights to support secondary water service sufficient to satisfy requirements for the Project. If such service is not available from or through Pineview Water District, Master Developer agrees to coordinate such service from the Four Mile SSD, previously formed to provide authorized services to areas of the City including the Project, including any

Project-specific services for which are required, but may be unable, to provide under applicable CC&Rs.

12. **Headings.** The captions used in this MDA are for convenience only and are not intended to be substantive provisions or evidence of intent.

13. **No Third-Party Rights/No Joint Venture.** This MDA does not create a joint venture relationship, partnership or agency relationship between the City or Master Developer. Further, the parties do not intend this MDA to create any third-party beneficiary rights. The Parties acknowledge that this MDA refers to a private development and that the City has no interest in, responsibility for or duty to any third parties concerning any improvements to the Property or unless the City has accepted the dedication of such improvements at which time all rights and responsibilities—except for warranty bond requirements under City’s Vested Laws and as allowed by state law—for the dedicated public improvement shall be the City’s.

14. **Hold Harmless.** Master Developer hereby covenants to indemnify, defend, and hold the City harmless from any claims made by any third parties regarding the City’s entry into this MDA and the City’s performance of any of its obligation under this MDA.

15. **Assignability.** The rights and responsibilities of Master Developer under this MDA may be assigned in whole or in part, respectively, by Master Developer with the consent of the City as provided herein, which consent may not unreasonably be withheld.

15.2. **Sale of Lots.** Master Developer’s selling or conveying lots in any approved Subdivision or Development Areas to builders, users, or Sub-developers, shall not be deemed to be an “assignment” subject to the above-referenced approval by the City unless specifically designated as such an assignment by Master Developer.

15.3. Related Entity. Master Developer's transfer of all or any part of the Property to any entity "related" to Master Developer (as defined by regulations of the Internal Revenue Service in § 165), Master Developer's entry into a joint venture for the development of the Project or Master Developer's pledging of part or all of the Project as security for financing shall also not be deemed to be an "assignment" subject to the above-referenced approval by the City unless specifically designated as such an assignment by the Master Developer. Master Developer shall give the City Notice of any event specified in this sub-section within fifteen (15) calendar days after the event has occurred. Such Notice shall include providing the City with all necessary contact information for the newly responsible party.

15.4. Notice. Master Developer shall give Notice to the City of any proposed assignment and provide such information regarding the proposed assignee that the City may reasonably request in making the evaluation permitted under this Section. Such Notice shall include providing the City with all necessary contact information for the proposed assignee.

15.5. Time for Objection. Unless the City objects in writing within fifteen (15) calendar days of notice, the City shall be deemed to have approved of and consented to the assignment.

15.6. Partial Assignment. If any proposed assignment is for less than all of Master Developer's rights and responsibilities, then the assignee shall be responsible for the performance of each of the obligations contained in this MDA to which the assignee succeeds. Upon any such approved partial assignment Master Developer shall not be released from any future obligations as to those obligations which are assigned but shall remain responsible for the performance of any obligations herein.

15.7. Denial. The City may only withhold its consent to an assignment of Master

Developer's rights hereunder if the City is not reasonably satisfied of the proposed assignee's financial ability to perform the obligations of Master Developer proposed to be assigned or there is an existing breach of a development obligation owed to the City by the assignee or related entity that has not either been cured or in the process of being cured in a manner acceptable to the City. Any refusal of the City to accept an assignment shall be subject to "Meet and Confer" and "Mediation" processes specified in §§ 7.6 and 7.8.1. If the denial arises in the context of any dispute that is subject to Arbitration, then the Parties shall follow such processes.

15.8. Assignees Bound by MDA. Any assignee shall consent in writing to be bound by the assigned terms and conditions of this MDA as a condition precedent to the effectiveness of the assignment. That consent shall specifically acknowledge the provisions of Section 2.

16. Binding Effect. If Master Developer sells or conveys Development Areas of lands to Sub-developers or related parties, the lands so sold and conveyed shall bear the same rights, privileges, configurations, and number of Residential Dwelling Units as applicable to such Development Area and be subject to the same limitations and rights of the City when owned by Master Developer and as set forth in this MDA without any required approval, review, or consent by the City except as otherwise provided herein.

17. No Waiver. Failure of any Party hereto to exercise any right hereunder shall not be deemed a waiver of any such right and shall not affect the right of such party to exercise at some future date any such right or any other right it may have.

18. Severability. If any provision of this MDA is held by a court of competent jurisdiction to be invalid for any reason, the Parties consider and intend that this MDA shall be deemed amended to the extent necessary to make it consistent with such decision and the balance

of this MDA shall remain in full force and affect.

19. **Force Majeure.** Any prevention, delay or stoppage of the performance of any obligation under this Agreement which is due to strikes, labor disputes, inability to obtain labor, materials, equipment or reasonable substitutes therefor; acts of nature, governmental restrictions, regulations or controls, judicial orders, enemy or hostile government actions, wars, civil commotions, fires or other casualties, governmental delays or restrictions resulting from COVID-19 or other declared pandemic, or other causes beyond the reasonable control of the Party obligated to perform hereunder shall excuse performance of the obligation by that Party for a period equal to the duration of that prevention, delay or stoppage.

20. **Time is of the Essence.** Time is of the essence to this MDA and every right or responsibility shall be performed within the times specified.

21. **Appointment of Representatives.** To further the commitment of the Parties to cooperate in the implementation of this MDA, the City and Master Developer each shall designate and appoint a representative to act as a liaison between the City and its various departments and the Master Developer. The initial representative for the City shall be the City Planner as the Administrator of the MDA as defined in § 1.2.2. The initial representative for Master Developer shall be Scott Smoot. The Parties may change their designated representatives by Notice. The representatives shall be available at all reasonable times to discuss and review the performance of the Parties to this MDA and the development of the Project.

22. **Entire Agreement.** This MDA, and all Exhibits thereto, is the entire agreement between the Parties and may not be amended or modified except either as provided herein or by a subsequent written amendment signed by all Parties.

23. **Estoppel Certificate.** Upon ten (10) calendar days' prior written request by Master

Developer or a Sub-developer, the City will execute an estoppel certificate to any third party certifying that Master Developer or a Sub-developer, as the case may be, at that time is not in default of the terms of this Agreement.

24. **Mutual Drafting.** Each Party has participated in negotiating and drafting this MDA and therefore no provision of this MDA shall be construed for or against any Party based on which Party drafted any portion of this MDA.

25. **Effective Date.** This MDA shall become effective upon Master Developer giving Notice to the City that Master Developer or its Assigns has (have) acquired the Property. Barring a written agreement between the Parties otherwise, if Master Developer has not given the City such Notice on or before December 31, 2022, then this MDA shall become null, void and of no effect.

26. **Recordation and Running with the Land.** This MDA shall be recorded in the chain of title for the Project after the Effective Date. This MDA shall be deemed to run with the land.

27. **Authority.** The Parties to this MDA each warrant that they have all of the necessary authority to execute this MDA. Specifically, on behalf of the City, the signature of the Mayor of the City is affixed to this MDA lawfully binding the City pursuant to Ordinance 523 adopted by the City on May 10, 2022.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respective, duly authorized representatives as of the day and year first herein written.

**MASTER DEVELOPER SIGNATURES**

Master Developer Representative

The Scott Group, LLC (as to 40%)

By: [Signature]  
Scott Smoot, Manager

The Myers Group, LLC (as to 20%)

By: [Signature]  
Luke Scott Myers, Manager

SDS7, LLC (as to 20%),

By: [Signature]  
~~Scott Smoot, Manager~~  
Korbin Smoot

Bailey V Properties, LLC (as to 20%)

By: [Signature]  
Brent Bailey, Manager

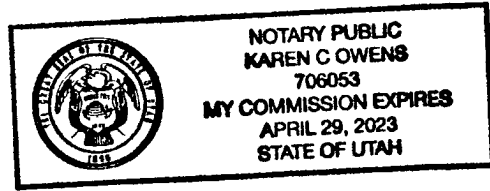
Date: 5/4/22

**MASTER DEVELOPER ACKNOWLEDGMENT**

STATE OF UTAH                    )  
  :SS.  
COUNTY OF WEBER                )

On the 11<sup>th</sup> day of May, 2022, personally appeared before me Brent Bailey, Scott Smoot, and Luke Scott Myers, who being by me duly sworn, did say that they are, respectively, Managers of the entities constituting the Master Developer, and that the foregoing instrument was duly authorized by the company at a lawful meeting held by authority of its operating agreement and signed in behalf of said entities.

*Karen C. Owens*



NOTARY PUBLIC

My Commission Expires: 4-29-2023 Residing at: Davis County

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respective, duly authorized representatives as of the day and year first herein written.

**CITY SIGNATURES**

Harrisville City Representative

Approved as to form and legality:

*Michelle Tait*

*Bryly F. F.*

By: Michelle Tait, City Mayor

City Attorney

Date: May 17, 2022

**CITY ACKNOWLEDGMENT**

STATE OF UTAH                    )  
  :ss.  
COUNTY OF WEBER                )



On the 17<sup>th</sup> day of May, 2022 personally appeared before me Michelle Tate who being by me duly sworn, did say that she is the City Mayor of Harrisville City, a political subdivision of the State of Utah, and that said instrument was signed in behalf of the City by authority of its City Council and said City Mayor acknowledged to me that the City executed the same.

Jennie Larae Knight

NOTARY PUBLIC



My Commission Expires: 11/01/2024

Residing at: Weber Co.

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### Exhibits:

|          |   |
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| <b>A</b> | Legal Description of Property                       |
| <b>B</b> | Master Plan Packet                                  |
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| <b>E</b> | Design and Site Standards                           |
|          | E-1 Commercial                                      |
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|          | J-2 Topographical Map                               |
| <b>K</b> | Geotechnical Report                                 |
| <b>L</b> | Landscape Map                                       |

WHOLE PARCEL DESCRIPTION

A WHOLE PARCEL LOCATED IN THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 6 NORTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, WEBER COUNTY, UTAH, BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF WASHINGTON BOULEVARD THAT IS NORTH 00°50'15" EAST 1244.63 FEET ALONG THE CENTERLINE OF SAID WASHINGTON BOULEVARD AND NORTH 89°18'10" WEST 66.00 FEET FROM THE MONUMENT AT THE INTERSECTION OF THE CENTERLINES OF 1100 NORTH STREET AND WASHINGTON BOULEVARD, SAID INTERSECTION MONUMENT BEING NORTH 89°05'05" WEST 660.59 FEET ALONG THE SECTION LINE AND SOUTH 00°50'15" WEST 163.47 FEET FROM THE SOUTHEAST CORNER OF SAID SECTION 5, AS MONUMENTED BY A BRASS CAP MONUMENT, APPROXIMATELY 2.0 FEET BELOW GROUND LEVEL, AND RUNNING THENCE NORTH 89°18'10" WEST 759.00 FEET; THENCE SOUTH 00°50'15" WEST 292.90 FEET (269.3 FEET, BY RECORD) TO A CHAIN LINK FENCE LINE; THENCE NORTH 89°36'44" WEST 473.52 FEET (415.1 FEET, BY RECORD); THENCE NORTH 00°53'10" EAST 1047.61 FEET (1047.4 FEET, BY RECORD) TO AND ALONG THE EAST LINE OF THE PLUSHNEST SUBDIVISION TO A CORNER OF SAID SUBDIVISION; THENCE NORTH 67°52'22" EAST 257.99 FEET ALONG THE SUBDIVISION LINE TO A CORNER OF SAID SUBDIVISION AND TO A FENCE LINE; THENCE NORTH 67°59'39" EAST 290.88 FEET ALONG SAID FENCE; THENCE NORTH 67°49'51" EAST 366.44 FEET ALONG SAID FENCE TO A FENCE LINE; THENCE SOUTH 02°59'00" EAST 199.24 FEET (SOUTH 02°51'00" EAST 175.02 FEET, BY RECORD) ALONG SAID FENCE; THENCE NORTH 89°50'15" EAST 12.60 FEET (13.0 FEET, BY RECORD) TO A FENCE LINE; THENCE SOUTH 02°19'41" EAST 122.15 FEET (SOUTH 02°51'00" EAST, BY RECORD) ALONG SAID FENCE; THENCE NORTH 89°52'00" EAST 356.15 FEET (341.85 FEET, BY RECORD) ALONG SAID FENCE TO SAID WEST LINE OF WASHINGTON BOULEVARD; THENCE SOUTH 00°50'15" WEST 791.43 FEET (814.3 FEET, BY RECORD) ALONG SAID WEST LINE TO THE POINT OF BEGINNING.

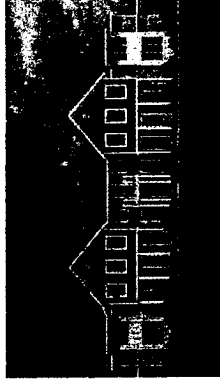
WHOLE PARCEL CONTAINS 28.336 ACRES.

HARRISVILLE TOWNHOME  
COMMUNITY

3 STORY TOWNHOME  
(2 CAR GARAGE)  
133 UNITS



2 STORY REAR-LOAD TOWNHOME  
(2 CAR GARAGE)  
82 UNITS

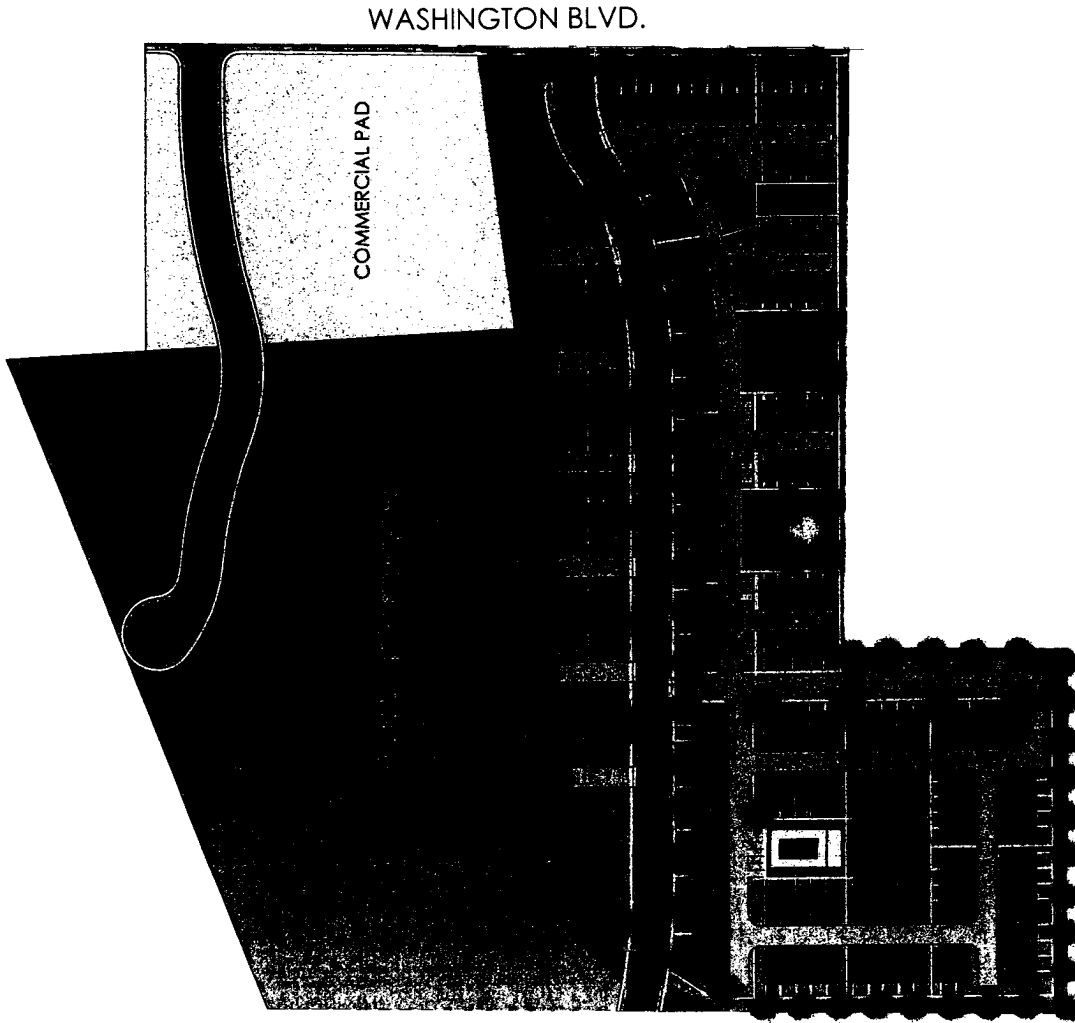


PUBLIC STREETS

PRIVATE STREETS

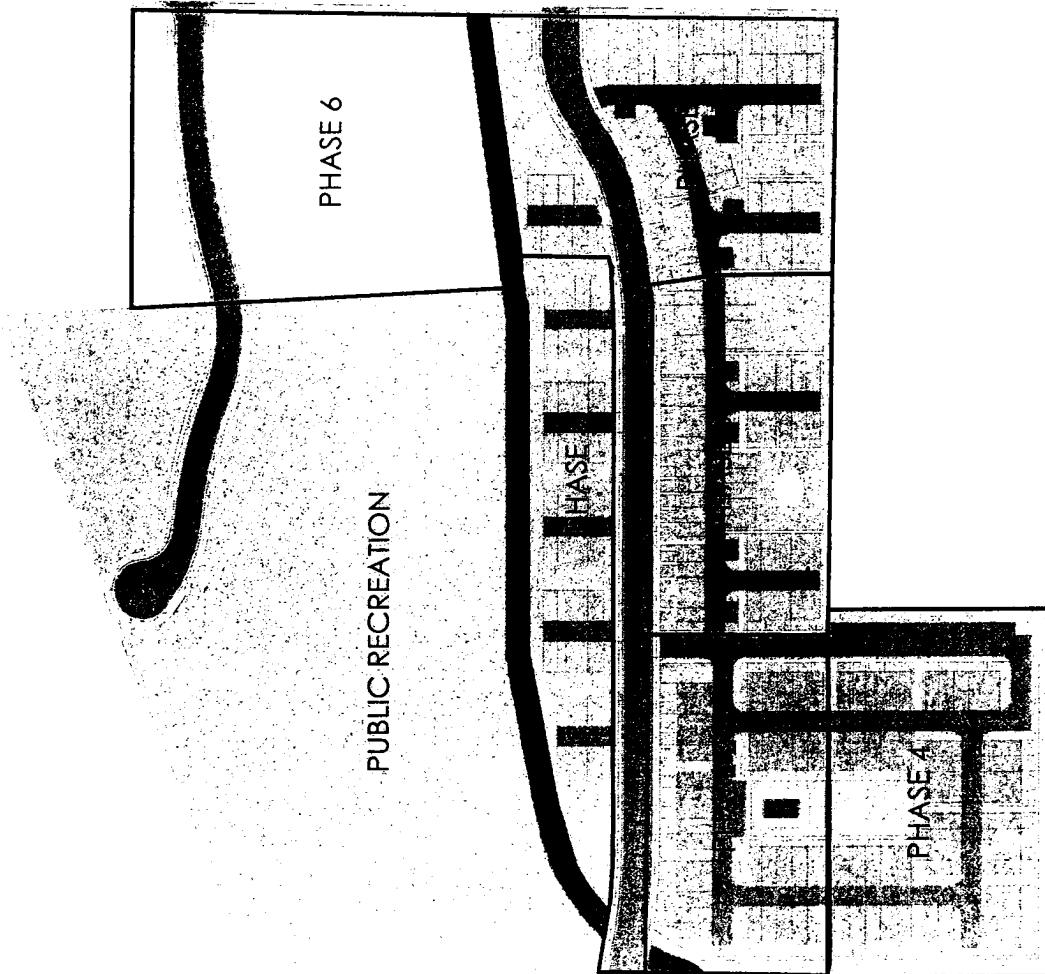
PARKING:

430 STALLS PROVIDED INSIDE GARAGES  
ADDITIONAL VISITOR PARKING

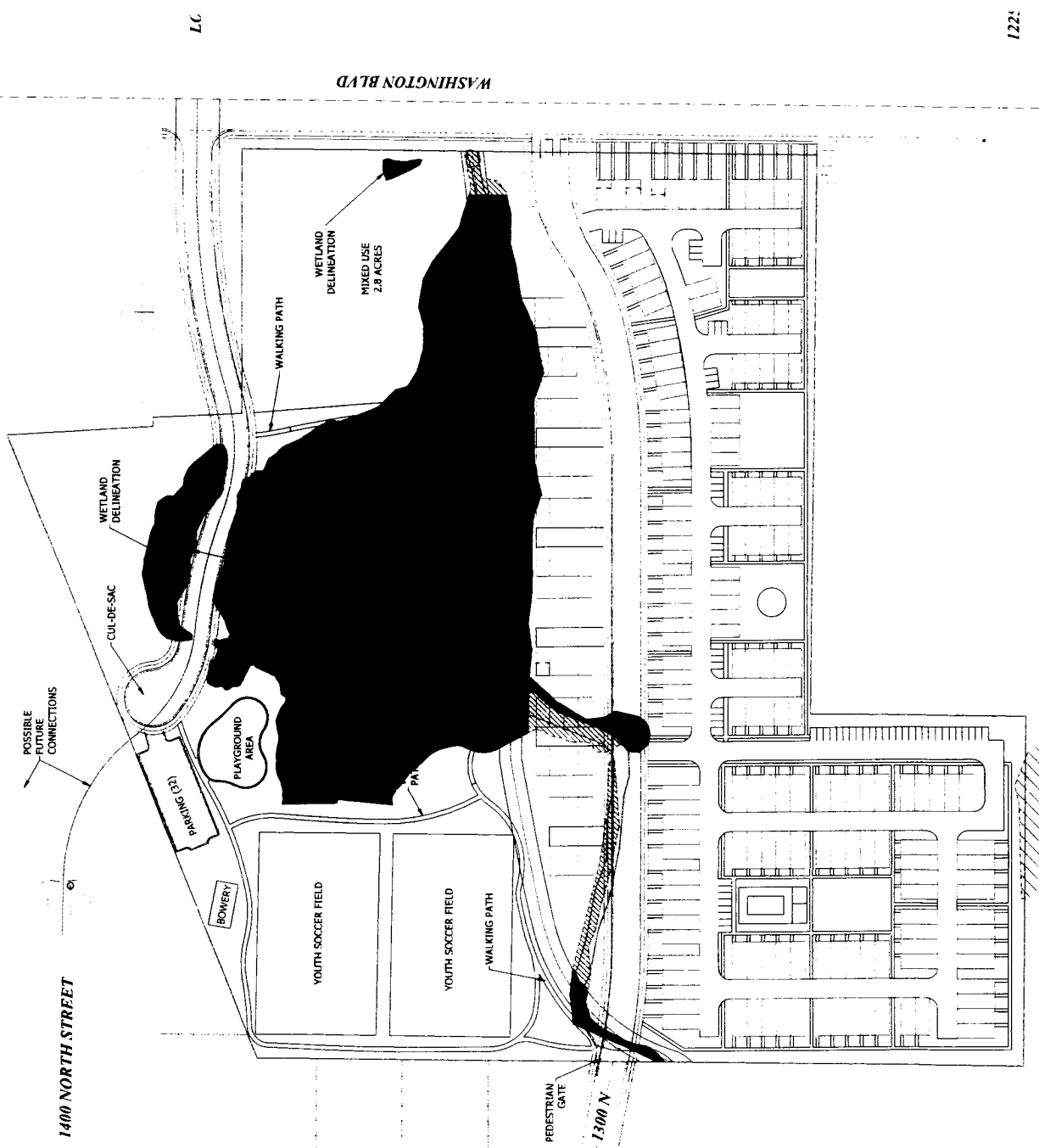



CONCEPT, PROJECT AND ROADWAY MAP, LAND USE

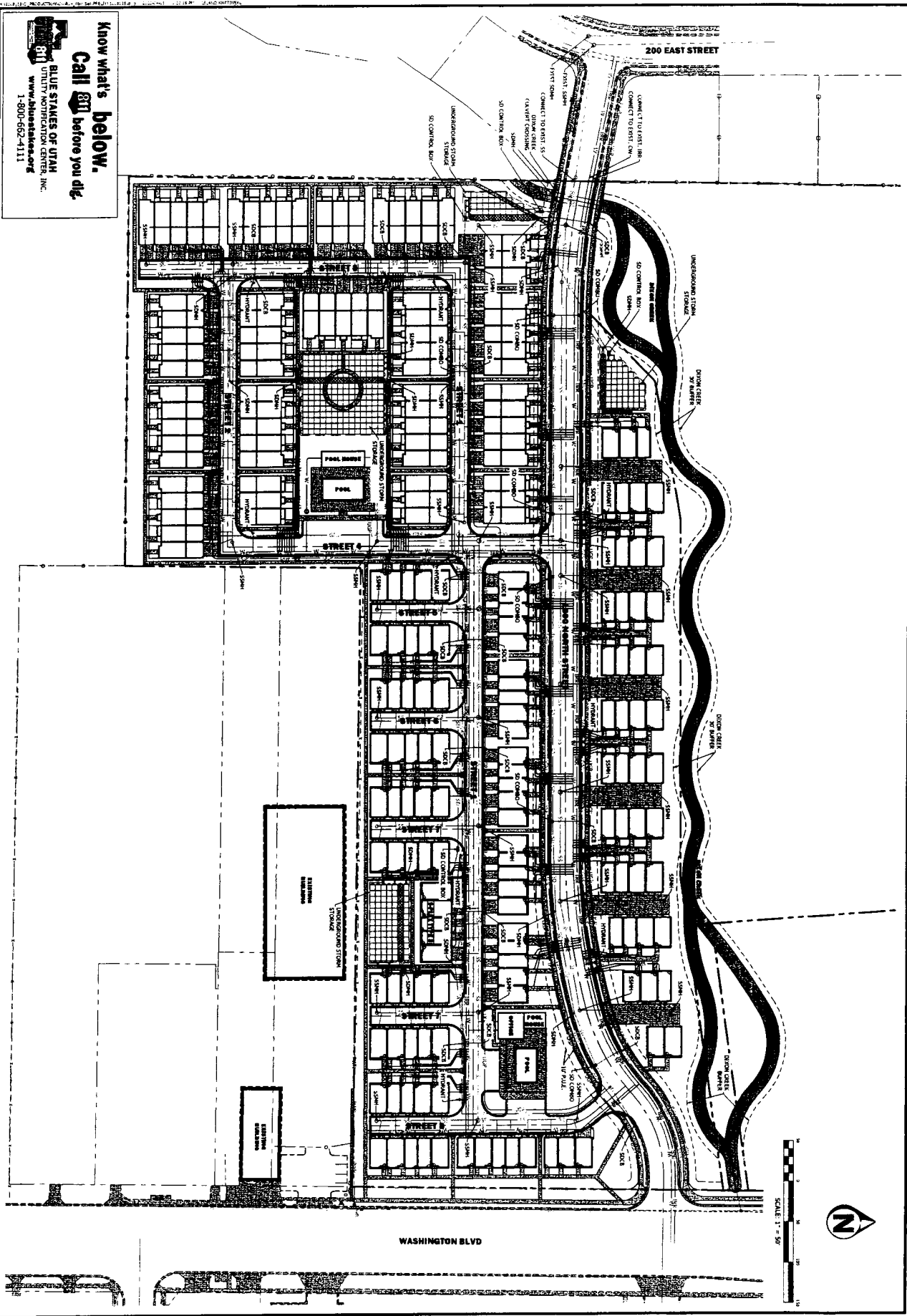
WASHINGTON BLVD.



# PHASING PLAN



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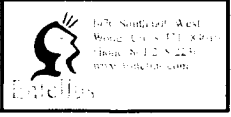


**REVISIONS**

|     |          |                   |
|-----|----------|-------------------|
| NO. | DATE     | DESCRIPTION       |
| 1   | 10/22/11 | ISSUE FOR PERMITS |
| 2   | 11/15/11 | ISSUE FOR PERMITS |
| 3   | 12/15/11 | ISSUE FOR PERMITS |
| 4   | 1/15/12  | ISSUE FOR PERMITS |
| 5   | 2/15/12  | ISSUE FOR PERMITS |
| 6   | 3/15/12  | ISSUE FOR PERMITS |
| 7   | 4/15/12  | ISSUE FOR PERMITS |
| 8   | 5/15/12  | ISSUE FOR PERMITS |
| 9   | 6/15/12  | ISSUE FOR PERMITS |
| 10  | 7/15/12  | ISSUE FOR PERMITS |

**BRIGHTON TOWNHOMES HARRISVILLE**  
 1300 N WASHINGTON BLVD  
 LOCATED IN THE SE 1/4 OF SECTION 5 T. 4 N. R. 20 W. S. 11 E. B.M.#  
 HARRISVILLE CITY, WEBER COUNTY, UTAH

**DEVELOPER**  
**BRIGHTON HOMES**  
 Contact: Taylor Spendlove  
 45 E Center Street  
 North Salt Lake, UT 84054  
 Phone: 801-397-9755  
[brightoncommunities.com](http://brightoncommunities.com)



# 1400 N Washington Boulevard

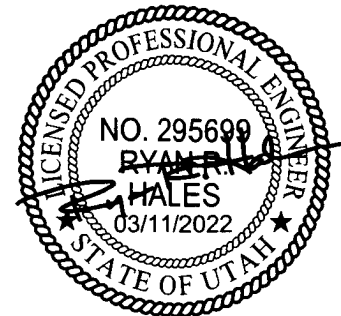
## Traffic Impact Study



**Harrisville, Utah**

**March 11, 2022**

**UT21-1910**





## EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed 1400 N Washington Boulevard development located in Harrisville, Utah. The 1400 N Washington Boulevard development is located on the west side of Washington Boulevard (S.R. 235).

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2021) and future (2026) conditions with and without the proposed project and to recommend mitigation measures as needed. The evening peak hour level of service (LOS) results are shown in Table ES-1.

**Table ES-1: Evening Peak Hour Level of Service Results**

| Intersection  | Level of Service |         |    |               |    |
|---|------------------|---------|----|---------------|----|
|   | Existing (2021)  |         |    | Future (2026) |    |
|   | BG               | BG Mit. | PP | BG            | PP |
| 1 Lockwood Dr & North Access / Washington Blvd (S.R. 235) |                  | A       | A  | A             | A  |
| 2 1225 North / Washington Blvd (S.R. 235)                 |                  |         |    |               |    |
| 3 1300 North / 200 East                                   | a                | a       | a  | a             | a  |
| 4 South Access / Washington Blvd (S.R. 235)               | -                | -       |    | -             |    |

1. Intersection LOS values represent the overall intersection average for roundabout, signalized, and all-way stop-controlled (AWSC) intersections (uppercase letter) and the worst movement for all other unsignalized intersections (lowercase letter)
2. BG = Background (without project traffic), PP = Plus Project (with project traffic), Mit. = With Mitigations

Source: Hales Engineering, March 2022

**SUMMARY OF KEY FINDINGS & RECOMMENDATIONS**

**Project Conditions**

- The development will consist of residential townhome units, a park, and commercial / retail
- The project is anticipated to generate approximately 4,164 new weekday daily trips, including 318 trips in the morning peak hour, and 406 trips in the evening peak hour

| 2021               | Background   | Plus Project  |
|--------------------|--|---|
| <b>Assumptions</b> | <ul style="list-style-type: none"> <li>• None</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>North Access / Washington Blvd (S.R. 235):</b> Install SB right-turn pocket, if feasible</li> <li>• Variance requests may be required for any unsignalized access on Washington Blvd (S.R. 235)</li> <li>• Residential component assumed to be constructed</li> </ul> |
| <b>Findings</b>    | <ul style="list-style-type: none"> <li>• Poor LOS at the Lockwood Dr / Washington Blvd (S.R. 235) and 1225 North / Washington Blvd (S.R. 235) intersections</li> </ul>   | <ul style="list-style-type: none"> <li>• Poor LOS at the 1225 North / Washington Blvd (S.R. 235) and South Access / Washington Blvd (S.R. 235) intersections</li> </ul>   |
| <b>Mitigations</b> | <ul style="list-style-type: none"> <li>• <b>Lockwood Dr / Washington Blvd (S.R. 235):</b> Signalize. This location does not meet signal spacing criteria, but UDOT requested that it be evaluated for signalization.</li> <li>• A signal is warranted at the 1225 North / Washington Blvd (S.R. 235) intersection during the morning peak hour, but it would not meet UDOT spacing requirements. Drivers would be able to reroute to the new signal</li> </ul> | <ul style="list-style-type: none"> <li>• None</li> </ul>  |

| 2026               | Background   | Plus Project  |
|--------------------|--|---|
| <b>Findings</b>    | <ul style="list-style-type: none"> <li>• Poor LOS at the 1225 North / Washington Blvd (S.R. 235) intersection</li> </ul> | <ul style="list-style-type: none"> <li>• Poor LOS at the 1225 North / Washington Blvd (S.R. 235) and South Access / Washington Blvd (S.R. 235) intersections</li> <li>• Full build assumed</li> </ul> |
| <b>Mitigations</b> | <ul style="list-style-type: none"> <li>• None</li> </ul>   | <ul style="list-style-type: none"> <li>• None</li> </ul>  |

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## I. INTRODUCTION

### A. Purpose

This study addresses the traffic impacts associated with the proposed 1400 N Washington Boulevard development located in Harrisville, Utah. The proposed project is located on the west side of Washington Boulevard (S.R. 235). Figure 1 shows a vicinity map of the proposed development.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2021) and future (2026) conditions with and without the proposed project and to recommend mitigation measures as needed.

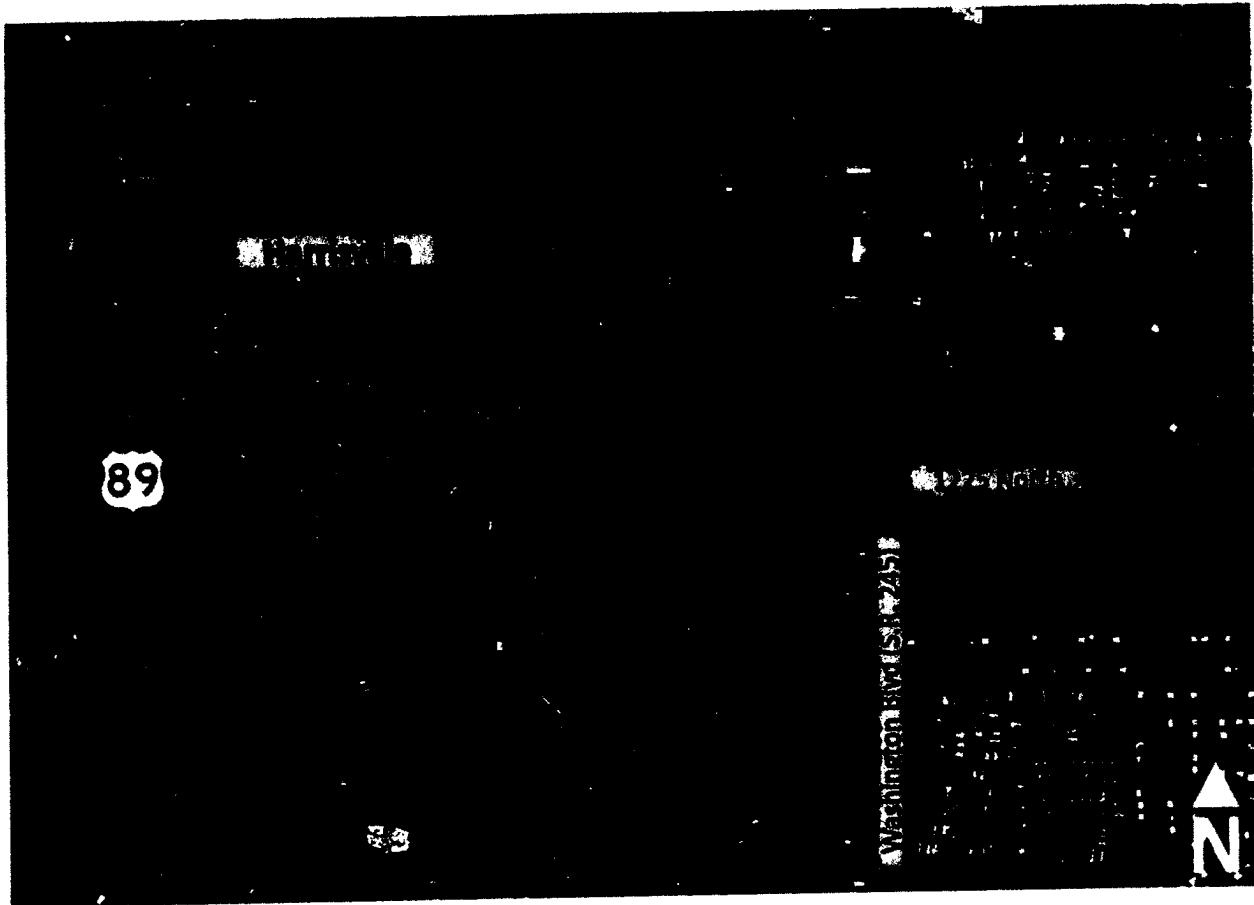


Figure 1: Vicinity map showing the project location in Harrisville, Utah

## **B. Scope**

The study area was defined based on conversations with the development team. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- Lockwood Drive / Washington Boulevard (S.R. 235)
- 1225 North / Washington Boulevard (S.R. 235)
- 1300 North / 200 East
- Project Access / Washington Boulevard (S.R. 235)

## **C. Analysis Methodology**

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.







The *Highway Capacity Manual* (HCM), 6<sup>th</sup> Edition, 2016 methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized, roundabout, and all-way stop-controlled (AWSC) intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections, LOS is reported based on the worst movement.

Using Synchro/SimTraffic software, which follow the HCM methodology, the peak hour LOS was computed for each study intersection. Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. The detailed LOS reports are provided in Appendix B. Hales Engineering also calculated the 95<sup>th</sup> percentile queue lengths for the study intersections using SimTraffic. The detailed queue length reports are provided in Appendix D.

## **D. Level of Service Standards**

For the purposes of this study, a minimum acceptable intersection performance for each of the study intersections was set at LOS D. If levels of service E or F conditions exist, an explanation and/or mitigation measures will be presented. A LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.

**Table 1: Level of Service Description**

| LOS | Description of Traffic Conditions  | Average Delay (seconds/vehicle) |                            |
|-----|--|---------------------------------|----------------------------|
|     |  | Signalized Intersections        | Unsignalized Intersections |
| A   | <br>Free Flow / Insignificant Delay                         | ≤ 10                            | ≤ 10                       |
| B   | <br>Stable Operations / Minimum Delays                      | > 10 to 20                      | > 10 to 15                 |
| C   | <br>Stable Operations / Acceptable Delays                 | > 20 to 35                      | > 15 to 25                 |
| D   | <br>Approaching Unstable Flows / Tolerable Delays         | > 35 to 55                      | > 25 to 35                 |
| E   | <br>Unstable Operations / Significant Delays              | > 55 to 80                      | > 35 to 50                 |
| F   | <br>Forced Flows / Unpredictable Flows / Excessive Delays | > 80                            | > 50                       |

Source: Hales Engineering Descriptions, based on the *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition, 2016 Methodology (Transportation Research Board)



## II. EXISTING (2021) BACKGROUND CONDITIONS

### A. Purpose

The purpose of the background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified, and potential mitigation measures recommended. This analysis provides a baseline condition that may be compared to the build conditions to identify the impacts of the development.

### B. Roadway System

The primary roadways that will provide access to the project site are described below:

Washington Boulevard (S.R. 235) – is a state-maintained roadway (classified by UDOT access management standards as a “System Priority – Urban Importance” facility, or access category 3 roadway). Washington Boulevard (S.R. 235) has two travel lanes in each direction separated by a center two-way left-turn lane (TWLTL). As identified and controlled by UDOT, a “Regional – Urban Importance” access classification does not allow unsignalized access. The posted speed limit on Washington Boulevard (S.R. 235) is 45 mph.

200 East – is a city-maintained roadway which is classified by the Harrisville General Plan (2019) as a “local street.” The roadway has one travel lane in each direction. The speed limit is assumed to be 25 mph in the study area.

### C. Traffic Volumes

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

- Lockwood Drive / Washington Boulevard (S.R. 235)
- 1225 North / Washington Boulevard (S.R. 235)
- 1300 North / 200 East

The counts were performed on Thursday, April 15, 2021. The morning peak hour was determined to be between 7:45 and 8:45 a.m., and the evening peak hour was determined to be between 4:30 and 5:30 p.m. The evening peak hour volumes were approximately 95% higher than the morning peak hour volumes. Therefore, the evening peak hour volumes were used in the analysis to represent the worst-case conditions. Detailed count data are included in Appendix A.

*The traffic counts were collected during the COVID-19 pandemic when traffic volumes were slightly reduced due to social distancing measures. According to the UDOT Automatic Traffic Signal Performance Measures (ATSPM) website, the traffic volumes on March 11, 2020 (pre-*

social distancing) were approximately 4% higher than those on May 26, 2021. Therefore, the collected data were increased by 4% to represent normal conditions.

Figure 2 shows the existing evening peak hour volumes as well as intersection geometry at the study intersections.

#### **D. Level of Service Analysis**

Hales Engineering determined that the Lockwood Drive / Washington Boulevard (S.R. 235) and 1225 North / Washington Blvd (S.R. 235) intersections are currently operating at poor levels of service during the evening peak hour, as shown in Table 2. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2021) conditions.

#### **E. Queuing Analysis**

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

- Lockwood Dr / Washington Blvd (S.R. 235):
  - Westbound: 575 feet
- 1225 North / Washington Blvd (S.R. 235):
  - Westbound: 725 feet

#### **F. Mitigation Measures**

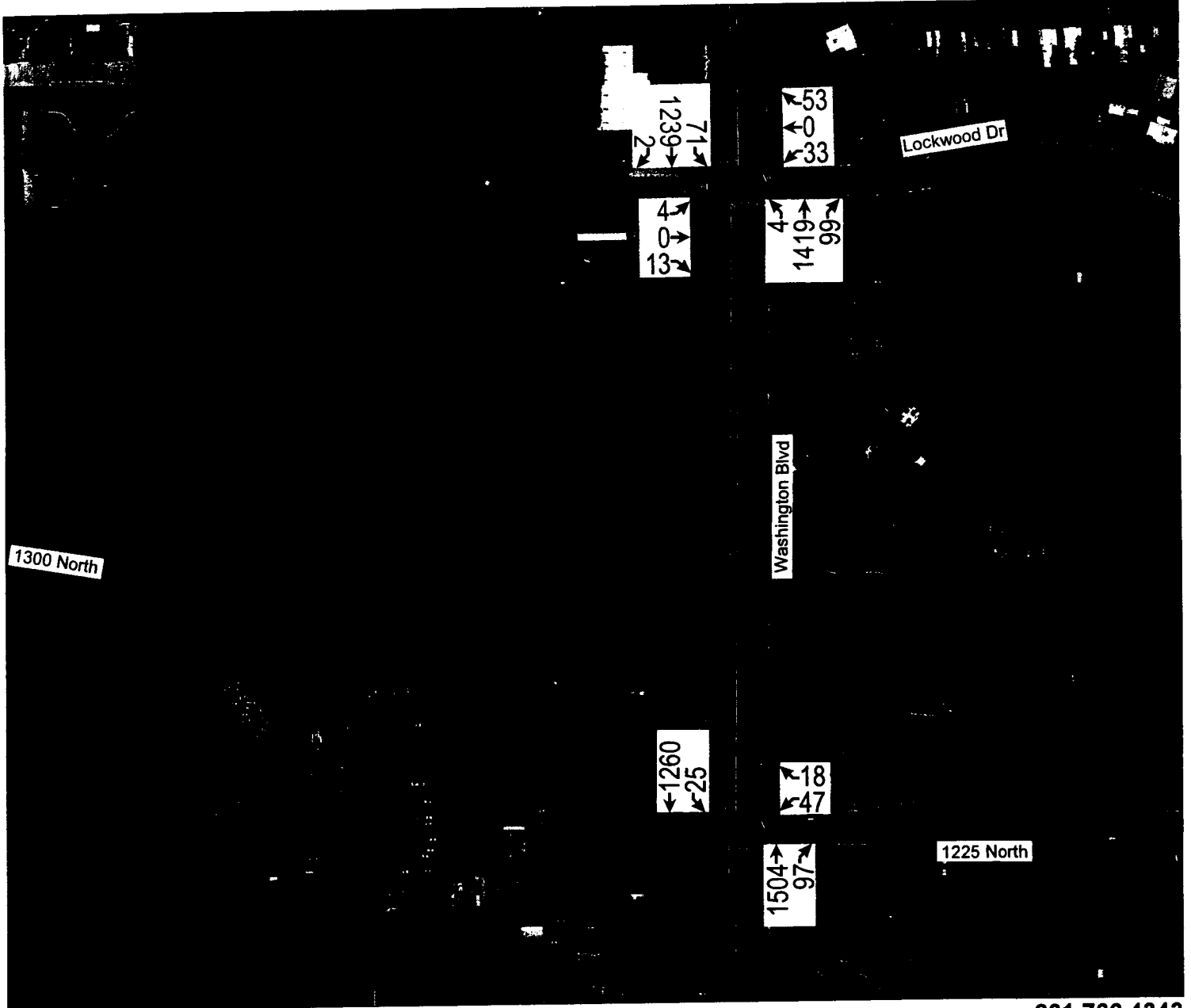
Since the prior study, UDOT has requested that the developer consolidate the project accesses and evaluate the Lockwood Drive / Washington Boulevard (S.R. 235) intersection for signal warrants. This intersection does not meet UDOT criteria for signal spacing requirements as it is located approximately 2,200 feet from the nearest existing signal and the requirement is 2,640 feet. Additionally, this intersection does not appear as a potential signal location on the corridor agreement.

However, the peak hour warrant is met under existing conditions in the current configuration of the intersection, and because UDOT requested evaluation of a signal, and warrants are met, it is recommended that one be installed.

The 1225 North / Washington Boulevard (S.R. 235) intersection, while warranting a signal during the morning peak hour, does not meet signal spacing criteria. If the signal at the Lockwood Drive / Washington Boulevard (S.R. 235) intersection is installed, drivers will have a new way from which to reroute.

#### **G. Mitigated Scenario**

With the proposed improvement, it is anticipated that the Lockwood Drive / Washington Boulevard (S.R. 235) intersection will perform at an acceptable LOS, as shown in Table 3.



Lehi, UT, 84043

801.766.4343  
03/11/2022

**Table 2: Existing (2021) Background Evening Peak Hour LOS**

| Intersection                             |            | Level of Service      |                           |                  |
|--|------------|-----------------------|---------------------------|------------------|
| Description                              | Control    | Movement <sup>1</sup> | Aver. Delay (Sec. / Veh.) | LOS <sup>2</sup> |
| Lockwood Dr / Washington Blvd (S.R. 235) | EB/WB Stop | WBL                   | >50                       | f                |
| 1225 North / Washington Blvd (S.R. 235)  | WB Stop    | WBL                   | >50                       | f                |
| 1300 North / 200 East                    | WB Stop    | WBL                   | 3.9                       | a                |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.  
2. Uppercase LOS used for signalized, roundabout, and A/WSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, March 2022

**Table 3: Mitigated Existing (2021) Background Evening Peak Hour LOS**

| Intersection                             |         | Level of Service      |                           |                  |
|--|---------|-----------------------|---------------------------|------------------|
| Description                              | Control | Movement <sup>1</sup> | Aver. Delay (Sec. / Veh.) | LOS <sup>2</sup> |
| Lockwood Dr / Washington Blvd (S.R. 235) | Signal  | -                     | 5.2                       | A                |
| 1225 North / Washington Blvd (S.R. 235)  | WB Stop | WBL                   | >50                       | f                |
| 1300 North / 200 East                    | WB Stop | WBR                   | 3.4                       | a                |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.  
2. Uppercase LOS used for signalized, roundabout, and A/WSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, March 2022

### III. PROJECT CONDITIONS

#### A. Purpose

The project conditions discussion explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in Chapter I.

#### B. Project Description

The proposed 1400 N Washington Boulevard development is located on the west side of Washington Boulevard (S.R. 235). The development will consist of residential townhome units, some commercial / retail, and a public park. The project will be broken into two phases as the commercial and park portions will be constructed a few years later. A concept plan for the proposed development is provided in Appendix C. The proposed land use for the development has been identified in Table 4.

**Table 4: Project Land Uses**

| Land Use            | Intensity      |
|---------------------|----------------|
| Townhomes           | 227 Units      |
| Commercial / Retail | 20,000 sq. ft. |
| Public Park         | 11 acres       |

#### C. Trip Generation

Trip generation for the residential and commercial components of the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 11<sup>th</sup> Edition, 2021. Trip generation for the park was calculated separately. Previously, the park was planned to contain two soccer fields and six pickleball courts. Current plans are unknown as of this writing and it is likely that the prior assumptions would produce a conservative trip generation. It was assumed that both soccer fields would be occupied with two teams with team staff for practice. It was assumed that 172 trips would cover the proposed soccer fields, pickleball courts, and general park use during the adjacent street peak hours.

Trip generation for the proposed project is included in Table 5.

The total trip generation for the development is as follows:

- Daily Trips: 4,164
- Morning Peak Hour Trips: 318
- Evening Peak Hour Trips: 406

**Table 5: Trip Generation**

| Trip Generation<br>Harrisville - 1400 N Washington Boulevard TIS |            |           |                 |      |       |              |              |              |  |
|--|------------|-----------|-----------------|------|-------|--------------|--------------|--------------|--|
| Land Use <sup>1</sup>  | # of Units | Unit Type | Trip Generation |      |       | New Trips    |              |              |  |
|  |            |           | Total           | % In | % Out | In           | Out          | Total        |  |
| <b>Weekday Daily</b>   |            |           |                 |      |       |              |              |              |  |
| Single-Family Attached Housing (215)                             | 220        | DU        | 1,626           | 50%  | 50%   | 813          | 813          | 1,626        |  |
| Strip Retail Plaza, <40k (822)                                   | 15         | KSF       | 818             | 50%  | 50%   | 409          | 409          | 818          |  |
| Public Park  | 11         | Acres     | 1,720           | 50%  | 50%   | 860          | 860          | 1,720        |  |
| <b>TOTAL</b>   |            |           | <b>4,164</b>    |      |       | <b>2,082</b> | <b>2,082</b> | <b>4,164</b> |  |
| <b>AM Peak Hour</b>  |            |           |                 |      |       |              |              |              |  |
| Single-Family Attached Housing (215)                             | 220        | DU        | 110             | 31%  | 69%   | 34           | 76           | 110          |  |
| Strip Retail Plaza, <40k (822)                                   | 15         | KSF       | 36              | 60%  | 40%   | 22           | 14           | 36           |  |
| Public Park  | 11         | Acres     | 172             | 50%  | 50%   | 86           | 86           | 172          |  |
| <b>TOTAL</b>   |            |           | <b>318</b>      |      |       | <b>142</b>   | <b>176</b>   | <b>318</b>   |  |
| <b>PM Peak Hour</b>  |            |           |                 |      |       |              |              |              |  |
| Single-Family Attached Housing (215)                             | 220        | DU        | 130             | 57%  | 43%   | 74           | 56           | 130          |  |
| Strip Retail Plaza, <40k (822)                                   | 15         | KSF       | 104             | 50%  | 50%   | 52           | 52           | 104          |  |
| Public Park  | 11         | Acres     | 172             | 50%  | 50%   | 86           | 86           | 172          |  |
| <b>TOTAL</b>   |            |           | <b>406</b>      |      |       | <b>212</b>   | <b>194</b>   | <b>406</b>   |  |

1. Land Use Code from the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition, 2021.  
SOURCE: Hales Engineering, March 2022

**D. Trip Distribution and Assignment**

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially near the site. The resulting distribution of project generated trips during the evening peak hour is shown in Table 6.

**Table 6: Trip Distribution**

| Direction          | % To/From Project |
|--------------------|-------------------|
| North (Washington) | 40%               |
| South (Washington) | 55%               |
| South (200 East)   | 5%                |

These trip distribution assumptions were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3 and Figure 4.

### **E. Access**

The proposed access for the site will be gained at the following locations (see also concept plan in Appendix C):

#### Washington Boulevard:

- The North Access will tie directly into the Lockwood Drive / Washington Boulevard (S.R. 235) intersection. It will access the project on the west side of Washington Boulevard (S.R. 235). It is anticipated that the access will be stop-controlled.
- The South Access will be located approximately 860 feet south of the Lockwood Drive / Washington Boulevard (S.R. 235) intersection. It will access the project on the west side of Washington Boulevard (S.R. 235). It is anticipated that the access will be stop-controlled.

It is worth mentioning that since Washington Boulevard (S.R. 235) is in an access category where unsignalized access is not allowed, a variance request will be needed for any access that would be allowed as an exception.

#### 200 East:

- The West Access will tie directly into existing 1300 North.

### **F. Auxiliary Lane Requirements**

UDOT Administrative Rule R930-6 outlines minimum turn volumes (measured in vehicles per hour) to warrant auxiliary lanes. However, it does not list warrants for deceleration lanes for Access Category 3 roadways. It is anticipated that the existing TWLTL will be sufficient for ingress left-turn movements; however, a southbound right-turn deceleration lane with 50 feet of storage, if feasible, is recommended at the North Access / Washington Boulevard (S.R. 235) intersection. The highest threshold at which right-turn deceleration lanes are required on other UDOT roadways is 50 vehicles per hour, which this is projected to exceed. However, the adjacent access to the north may lie within the space required for a right-turn lane, rendering it infeasible.



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## IV. EXISTING (2021) PLUS PROJECT CONDITIONS

### A. Purpose

The purpose of the existing (2021) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

### B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the existing (2021) background traffic volumes to predict turning movement volumes for existing (2021) plus project conditions. Trips from the existing public works building were removed from the network as it will eventually be replaced by the commercial pad. Existing (2021) plus project evening peak hour turning movement volumes are shown in Figure 5.

### C. Level of Service Analysis

Hales Engineering determined that the 1225 North / Washington Boulevard (S.R. 235) and South Access / Washington Boulevard (S.R. 235) intersections are anticipated to operate at poor levels of service during the evening peak hour with project traffic added, as shown in Table 7.

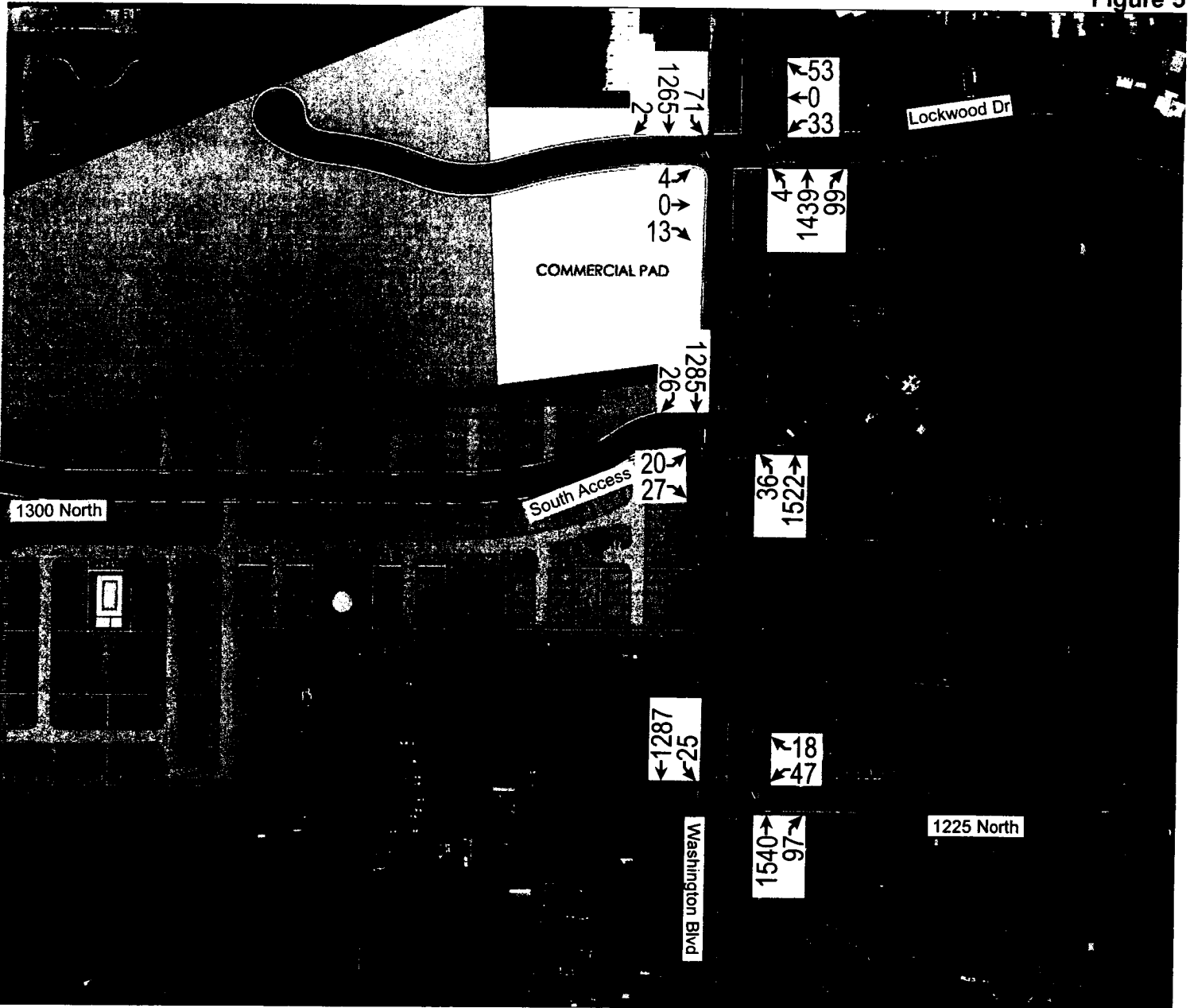
### D. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Some significant queuing was observed during the evening peak hour. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

- 1225 North / Washington Blvd (S.R. 235)
  - Westbound: 550 feet

### E. Mitigation Measures

No mitigation measures are recommended as signalization is not an option. Alternate routes are available, and drivers will learn to take them.



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**Table 7: Existing (2021) Plus Project Evening Peak Hour LOS**

| Intersection                              |         | Level of Service      |                           |                  |
|---|---------|-----------------------|---------------------------|------------------|
| Description                               | Control | Movement <sup>1</sup> | Aver. Delay (Sec. / Veh.) | LOS <sup>2</sup> |
| Lockwood Dr / Washington Blvd (S.R. 235)  | Signal  | -                     | 5.0                       | A                |
| 1225 North / Washington Blvd (S.R. 235)   | WB Stop | WBL                   | >50                       | f                |
| 1300 North / 200 East                     | WB Stop | WBL                   | 4.1                       | a                |
| South Access / Washington Blvd (S.R. 235) | EB Stop | EBL                   | >50                       | f                |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, March 2022

## V. FUTURE (2026) BACKGROUND CONDITIONS

### A. Purpose

The purpose of the future (2026) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

### B. Roadway Network

According to the Wasatch Front Regional Council (WFRC) Regional Transportation Plan, there are no projects planned before 2026 in the study area. Therefore, no changes were made to the roadway network for the future (2026) analysis.

### C. Traffic Volumes

Hales Engineering obtained future (2026) forecasted volumes from the Wasatch Front Regional Council (WFRC) / Mountainland Association of Governments (MAG) travel demand model. Peak period turning movement counts were estimated using National Cooperative Highway Research Program (NCHRP) 255 methodologies which utilize existing peak period turn volumes and future average weekday daily traffic (AWDT) volumes to project the future turn volumes at the major intersections. Future (2026) evening peak hour turning movement volumes are shown in Figure 6.

### D. Level of Service Analysis

Hales Engineering determined that the 1225 North / Washington Boulevard (S.R. 235) intersection is anticipated to operate at a poor LOS during the evening peak hour in future (2026) background conditions, as shown in Table 8. These results serve as a baseline condition for the impact analysis of the proposed development for future (2026) conditions.

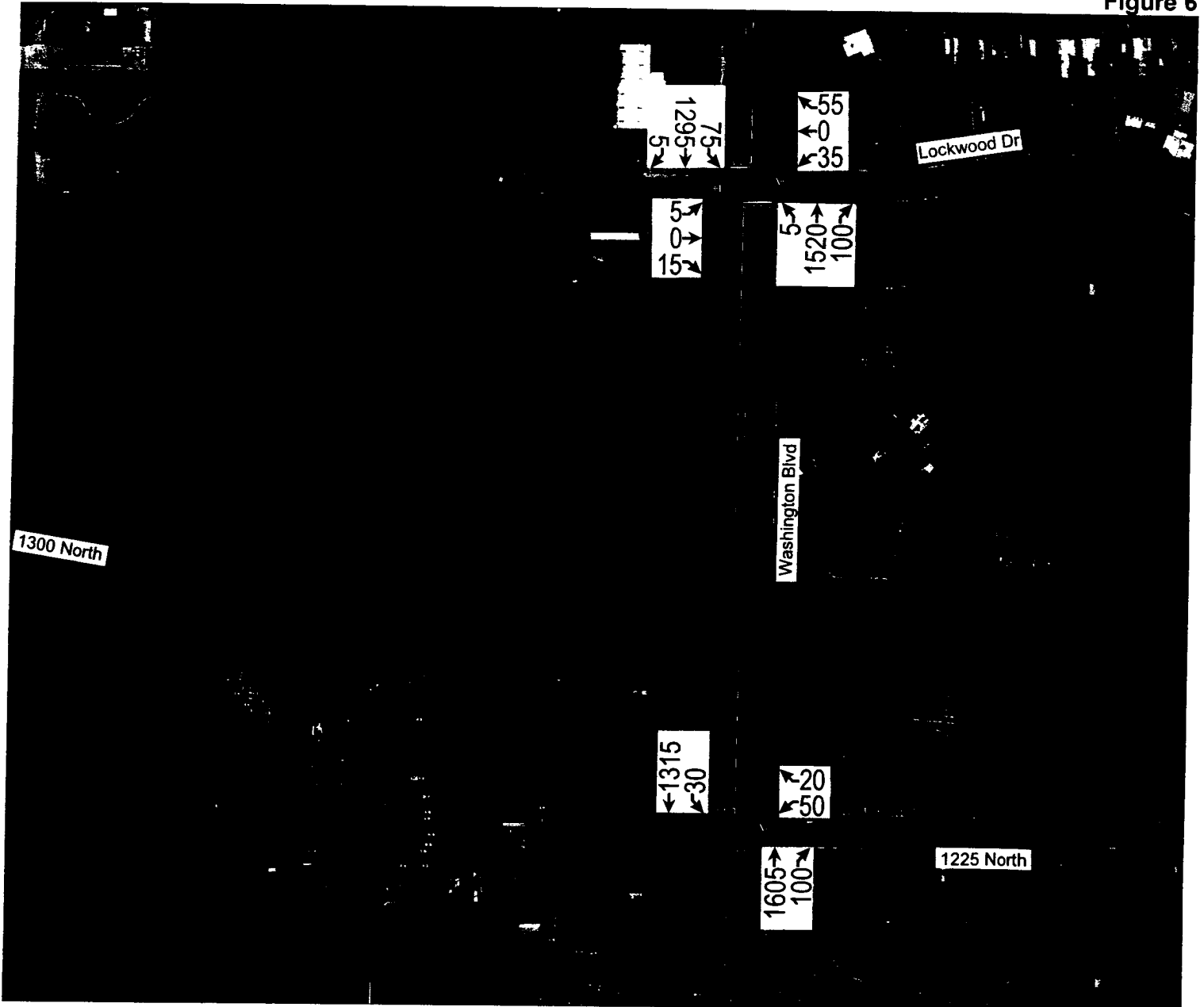
### E. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

- 1225 North / Washington Blvd (S.R. 235)
  - Westbound: 775 feet

### F. Mitigation Measures

No mitigation measures are recommended.



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**Table 8: Future (2026) Background Evening Peak Hour LOS**

| Intersection                             |         | Level of Service      |                           |                  |
|--|---------|-----------------------|---------------------------|------------------|
| Description                              | Control | Movement <sup>1</sup> | Aver. Delay (Sec. / Veh.) | LOS <sup>2</sup> |
| Lockwood Dr / Washington Blvd (S.R. 235) | Signal  | -                     | 6.0                       | A                |
| 1225 North / Washington Blvd (S.R. 235)  | WB Stop | WBL                   | >50                       | f                |
| 1300 North / 200 East                    | WB Stop | WBL                   | 4.2                       | a                |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, March 2022

## VI. FUTURE (2026) PLUS PROJECT CONDITIONS

### A. Purpose

The purpose of the future (2026) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

### B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the future (2026) background traffic volumes to predict turning movement volumes for future (2026) plus project conditions. Future (2026) plus project evening peak hour turning movement volumes are shown in Figure 7.

### C. Level of Service Analysis

Hales Engineering determined that the 1225 North / Washington Boulevard (S.R. 235) and South Access / Washington Boulevard (S.R. 235) intersections are anticipated to operate at poor levels of service during the evening peak hour in future (2026) plus project conditions, as shown in Table 9.

### D. Queuing Analysis

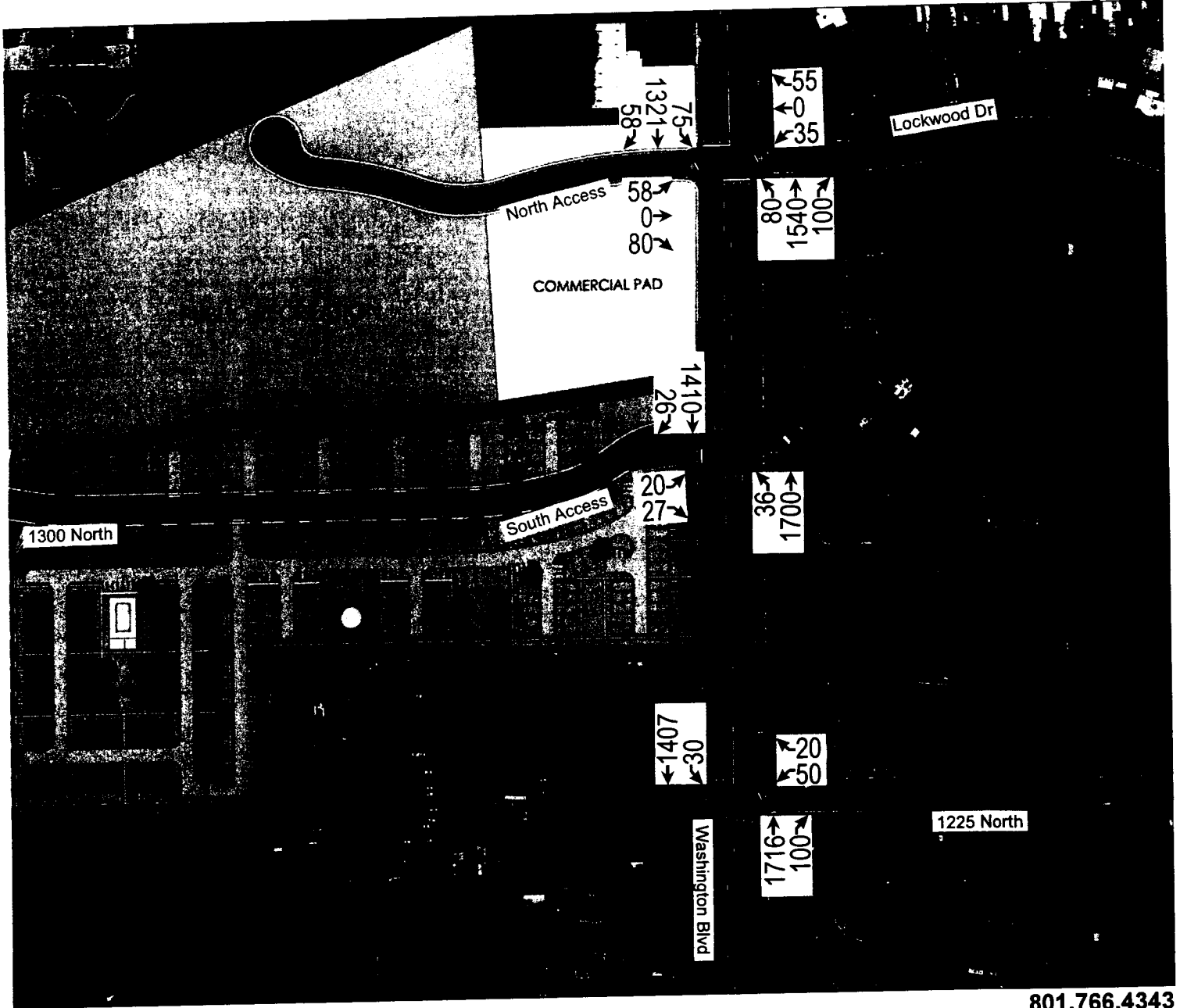
Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Some significant queueing was observed during the evening peak hour. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

- 1225 North / Washington Blvd (S.R. 235):
  - Westbound: 850 feet
- South Access / Washington Blvd (S.R. 235):
  - Eastbound: 175 feet

### E. Mitigation Measures

No mitigation measures are recommended.





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**Table 9: Future (2026) Plus Project Evening Peak Hour LOS**

| Intersection                                 |         | Level of Service      |                           |                  |
|--|---------|-----------------------|---------------------------|------------------|
| Description                                  | Control | Movement <sup>1</sup> | Aver. Delay (Sec. / Veh.) | LOS <sup>2</sup> |
| Lockwood Dr & North Access / Washington Blvd | Signal  | -                     | 9.3                       | A                |
| 1225 North / Washington Blvd (S.R. 235)      | WB Stop | WBL                   | >50                       | f                |
| 1300 North / 200 East                        | WB Stop | WBL                   | 4.1                       | a                |
| South Access / Washington Blvd (S.R. 235)    | EB Stop | EBL                   | >50                       | f                |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.  
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections

Source: Hales Engineering, March 2022

# APPENDIX A

## Turning Movement Counts

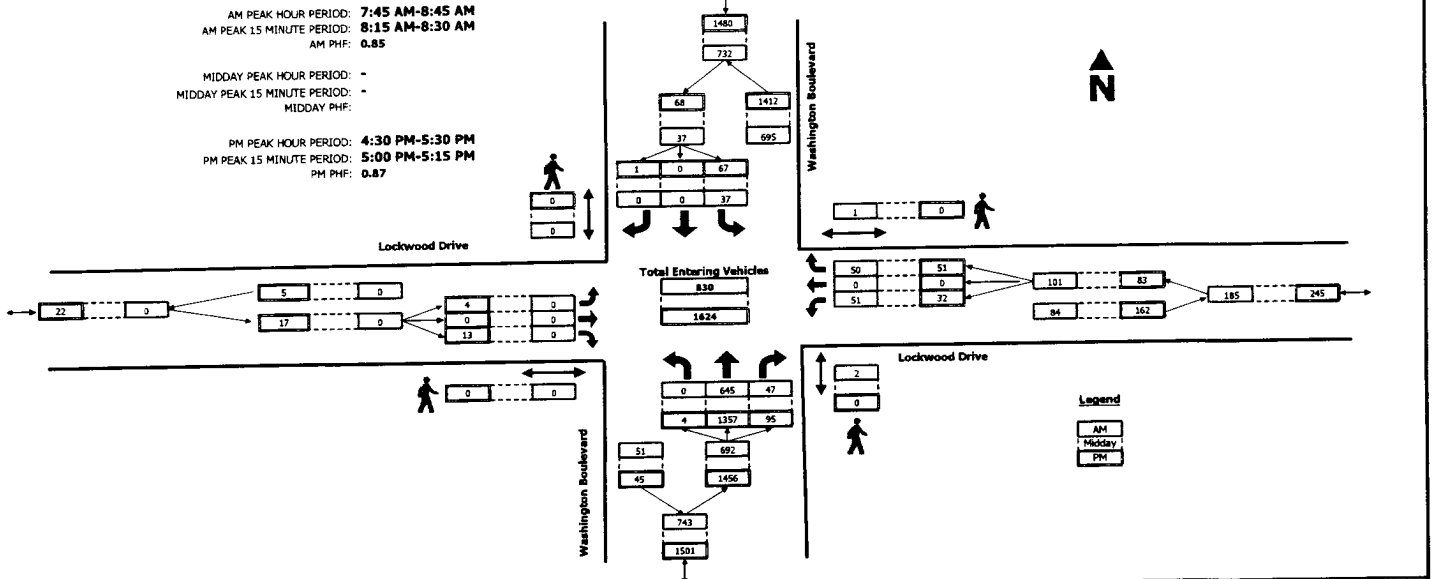
# Traffic Counts

2364 North 1450 East  
 Lehi, UT 84043  
 801.636.0891

## Intersection Turning Movement Summary

Intersection: Washington Boulevard / Lockwood Drive  
 North/South: Washington Boulevard  
 East/West: Lockwood Drive  
 Jurisdiction: Harrisville  
 Project Title: 1400 N Washington Boulevard TIS  
 Project No: UT21-1910  
 Weather: Clear

Date: 5-26-21, Wed  
 Day of Week Adjustment: 100.0%  
 Month of Year Adjustment: 100.0%  
 Adjustment Station #: 0  
 Growth Rate: 0.0%  
 Number of Years: 0



| RAW COUNT SUMMARIES         | Washington Boulevard Northbound |      |       |      | Washington Boulevard Southbound |      |       |      | Lockwood Drive Eastbound |      |       |      | Lockwood Drive Westbound |      |       |      | TOTAL |
|-----------------------------|---------------------------------|------|-------|------|---------------------------------|------|-------|------|--------------------------|------|-------|------|--------------------------|------|-------|------|-------|
|                             | Left                            | Thru | Right | Peds | Left                            | Thru | Right | Peds | Left                     | Thru | Right | Peds | Left                     | Thru | Right | Peds |       |
| <b>AM PERIOD COUNTS</b>     |                                 |      |       |      |                                 |      |       |      |                          |      |       |      |                          |      |       |      |       |
| Period                      | A                               | B    | C     | D    | E                               | F    | G     | H    | I                        | J    | K     | L    | M                        | N    | O     | P    | TOTAL |
| 7:00 - 7:15                 | 0                               | 111  | 6     | 0    | 1                               | 111  | 0     | 0    | 0                        | 0    | 0     | 0    | 8                        | 0    | 3     | 0    | 240   |
| 7:15 - 7:30                 | 0                               | 127  | 4     | 0    | 6                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 6                        | 0    | 12    | 0    | 155   |
| 7:30 - 7:45                 | 0                               | 117  | 5     | 0    | 10                              | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 7                        | 0    | 7     | 0    | 146   |
| 7:45 - 8:00                 | 0                               | 150  | 17    | 0    | 11                              | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 7                        | 0    | 5     | 0    | 190   |
| 8:00 - 8:15                 | 0                               | 176  | 16    | 0    | 6                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 15                       | 0    | 11    | 1    | 224   |
| 8:15 - 8:30                 | 0                               | 175  | 14    | 2    | 11                              | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 19                       | 0    | 26    | 0    | 245   |
| 8:30 - 8:45                 | 0                               | 144  | 0     | 0    | 9                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 10                       | 0    | 8     | 0    | 171   |
| 8:45 - 9:00                 | 0                               | 169  | 4     | 2    | 4                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 4                        | 0    | 6     | 0    | 187   |
| <b>MIDDAY PERIOD COUNTS</b> |                                 |      |       |      |                                 |      |       |      |                          |      |       |      |                          |      |       |      |       |
| Period                      | A                               | B    | C     | D    | E                               | F    | G     | H    | I                        | J    | K     | L    | M                        | N    | O     | P    | TOTAL |
| 9:00 - 9:15                 | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 9:15 - 9:30                 | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 9:30 - 9:45                 | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 9:45 - 10:00                | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 10:00 - 10:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 10:15 - 10:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 10:30 - 10:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 10:45 - 11:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 11:00 - 11:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 11:15 - 11:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 11:30 - 11:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 11:45 - 12:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 12:00 - 12:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 12:15 - 12:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 12:30 - 12:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 12:45 - 13:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 13:00 - 13:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 13:15 - 13:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 13:30 - 13:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 13:45 - 14:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 14:00 - 14:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 14:15 - 14:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 14:30 - 14:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 14:45 - 15:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 15:00 - 15:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 15:15 - 15:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 15:30 - 15:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| 15:45 - 16:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 0     |
| <b>PM PERIOD COUNTS</b>     |                                 |      |       |      |                                 |      |       |      |                          |      |       |      |                          |      |       |      |       |
| Period                      | A                               | B    | C     | D    | E                               | F    | G     | H    | I                        | J    | K     | L    | M                        | N    | O     | P    | TOTAL |
| 16:00 - 16:15               | 0                               | 314  | 5     | 0    | 4                               | 0    | 0     | 0    | 0                        | 0    | 1     | 0    | 9                        | 0    | 12    | 0    | 345   |
| 16:15 - 16:30               | 0                               | 320  | 6     | 0    | 14                              | 0    | 0     | 0    | 0                        | 0    | 1     | 0    | 8                        | 1    | 7     | 0    | 357   |
| 16:30 - 16:45               | 2                               | 325  | 16    | 0    | 15                              | 0    | 0     | 0    | 0                        | 0    | 3     | 0    | 13                       | 0    | 14    | 0    | 388   |
| 16:45 - 17:00               | 2                               | 302  | 8     | 0    | 17                              | 0    | 1     | 0    | 3                        | 0    | 7     | 0    | 7                        | 0    | 10    | 0    | 357   |
| 17:00 - 17:15               | 0                               | 421  | 6     | 0    | 19                              | 0    | 0     | 0    | 1                        | 0    | 2     | 0    | 8                        | 0    | 10    | 0    | 467   |
| 17:15 - 17:30               | 0                               | 309  | 65    | 0    | 16                              | 0    | 0     | 0    | 1                        | 0    | 2     | 0    | 4                        | 0    | 17    | 0    | 412   |
| 17:30 - 17:45               | 0                               | 250  | 8     | 0    | 9                               | 0    | 0     | 0    | 0                        | 0    | 0     | 0    | 5                        | 0    | 5     | 0    | 277   |
| 17:45 - 18:00               | 0                               | 300  | 9     | 0    | 11                              | 0    | 0     | 0    | 10                       | 0    | 4     | 0    | 1                        | 0    | 7     | 0    | 342   |

# Traffic Counts

2364 North 1450 East  
Lehi, UT 84043  
801.636.0891

## Intersection Turning Movement Summary

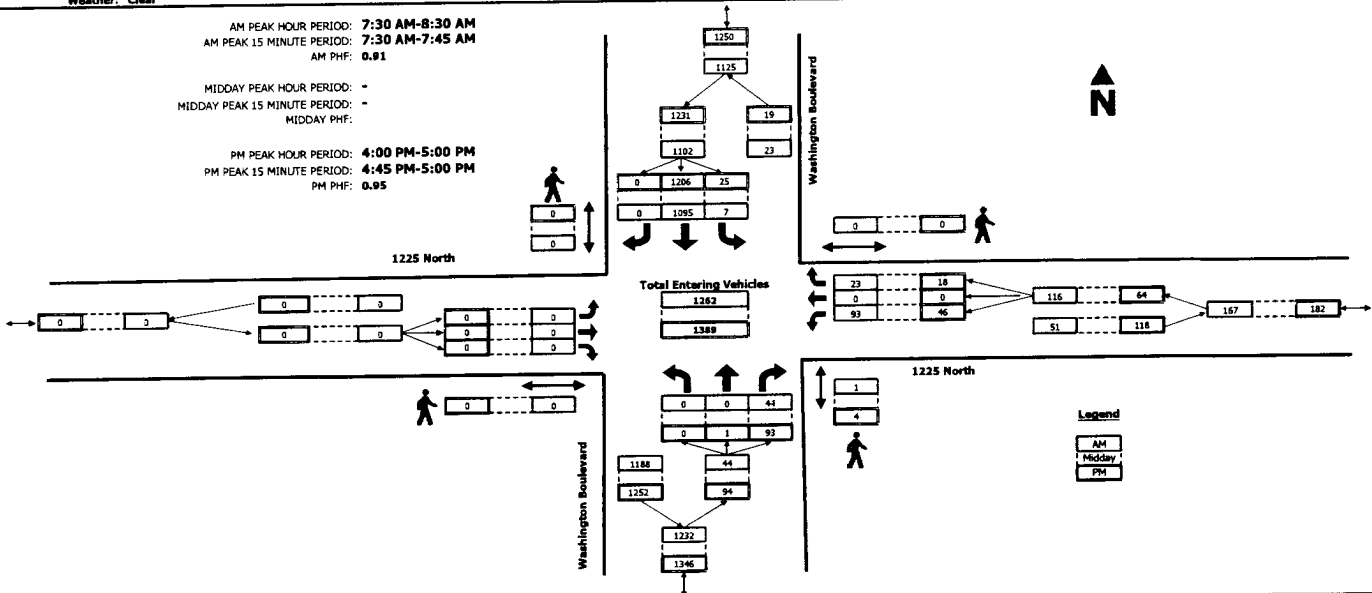
Intersection: Washington Boulevard / 1225 North  
North/South: Washington Boulevard  
East/West: 1225 North  
Jurisdiction: Harrisville  
Project Title: 1400 N Washington Boulevard TIS  
Project No: UT21-1910  
Weather: Clear

Date: 5-26-21, Wed  
Day of Week Adjustment: 100.0%  
Month of Year Adjustment: 100.0%  
Adjustment Station #: 0  
Growth Rate: 0.0%  
Number of Years: 0

AM PEAK HOUR PERIOD: 7:30 AM-8:30 AM  
AM PEAK 15 MINUTE PERIOD: 7:30 AM-7:45 AM  
AM PHF: 0.91

MIDDAY PEAK HOUR PERIOD: -  
MIDDAY PEAK 15 MINUTE PERIOD: -  
MIDDAY PHF: -

PM PEAK HOUR PERIOD: 4:00 PM-5:00 PM  
PM PEAK 15 MINUTE PERIOD: 4:45 PM-5:00 PM  
PM PHF: 0.95



| RAW COUNT SUMMARIES         | Washington Boulevard Northbound |      |       |      | Washington Boulevard Southbound |      |       |      | 1225 North Eastbound |      |       |      | 1225 North Westbound |      |       |      | TOTAL |
|-----------------------------|---------------------------------|------|-------|------|---------------------------------|------|-------|------|----------------------|------|-------|------|----------------------|------|-------|------|-------|
|                             | Left                            | Thru | Right | Peds | Left                            | Thru | Right | Peds | Left                 | Thru | Right | Peds | Left                 | Thru | Right | Peds |       |
| <b>AM PERIOD COUNTS</b>     |                                 |      |       |      |                                 |      |       |      |                      |      |       |      |                      |      |       |      |       |
| Period                      | A                               | B    | C     | D    | E                               | F    | G     | H    | I                    | J    | K     | L    | M                    | N    | O     | P    | TOTAL |
| 7:00 - 7:15                 | 0                               | 0    | 6     | 0    | 3                               | 222  | 0     | 0    | 0                    | 0    | 0     | 0    | 16                   | 0    | 2     | 0    | 249   |
| 7:15 - 7:30                 | 0                               | 0    | 8     | 0    | 3                               | 268  | 0     | 0    | 0                    | 0    | 0     | 0    | 21                   | 0    | 0     | 0    | 320   |
| 7:30 - 7:45                 | 0                               | 0    | 11    | 0    | 1                               | 306  | 0     | 0    | 0                    | 0    | 0     | 0    | 22                   | 0    | 5     | 0    | 345   |
| 7:45 - 8:00                 | 0                               | 0    | 14    | 1    | 0                               | 247  | 0     | 0    | 0                    | 0    | 0     | 0    | 19                   | 0    | 7     | 0    | 287   |
| 8:00 - 8:15                 | 0                               | 0    | 12    | 0    | 3                               | 251  | 0     | 0    | 0                    | 0    | 0     | 0    | 32                   | 0    | 6     | 0    | 304   |
| 8:15 - 8:30                 | 0                               | 0    | 7     | 0    | 3                               | 291  | 0     | 0    | 0                    | 0    | 0     | 0    | 20                   | 0    | 5     | 0    | 326   |
| 8:30 - 8:45                 | 0                               | 0    | 10    | 0    | 2                               | 288  | 0     | 0    | 0                    | 0    | 0     | 0    | 13                   | 0    | 0     | 0    | 313   |
| 8:45 - 9:00                 | 0                               | 0    | 10    | 0    | 0                               | 208  | 0     | 0    | 0                    | 0    | 0     | 0    | 10                   | 0    | 7     | 0    | 235   |
| <b>MIDDAY PERIOD COUNTS</b> |                                 |      |       |      |                                 |      |       |      |                      |      |       |      |                      |      |       |      |       |
| Period                      | A                               | B    | C     | D    | E                               | F    | G     | H    | I                    | J    | K     | L    | M                    | N    | O     | P    | TOTAL |
| 9:00 - 9:15                 | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 9:15 - 9:30                 | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 9:30 - 9:45                 | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 9:45 - 10:00                | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 10:00 - 10:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 10:15 - 10:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 10:30 - 10:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 10:45 - 11:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 11:00 - 11:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 11:15 - 11:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 11:30 - 11:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 11:45 - 12:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 12:00 - 12:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 12:15 - 12:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 12:30 - 12:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 12:45 - 13:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 13:00 - 13:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 13:15 - 13:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 13:30 - 13:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 13:45 - 14:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 14:00 - 14:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 14:15 - 14:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 14:30 - 14:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 14:45 - 15:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 15:00 - 15:15               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 15:15 - 15:30               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 15:30 - 15:45               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| 15:45 - 16:00               | 0                               | 0    | 0     | 0    | 0                               | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     |
| <b>PM PERIOD COUNTS</b>     |                                 |      |       |      |                                 |      |       |      |                      |      |       |      |                      |      |       |      |       |
| Period                      | A                               | B    | C     | D    | E                               | F    | G     | H    | I                    | J    | K     | L    | M                    | N    | O     | P    | TOTAL |
| 16:00 - 16:15               | 0                               | 0    | 17    | 0    | 8                               | 319  | 0     | 0    | 0                    | 0    | 0     | 0    | 4                    | 0    | 5     | 0    | 353   |
| 16:15 - 16:30               | 0                               | 0    | 22    | 2    | 1                               | 282  | 0     | 0    | 0                    | 0    | 0     | 0    | 11                   | 0    | 5     | 0    | 321   |
| 16:30 - 16:45               | 0                               | 1    | 30    | 1    | 6                               | 288  | 0     | 0    | 0                    | 0    | 0     | 0    | 20                   | 0    | 5     | 0    | 350   |
| 16:45 - 17:00               | 0                               | 0    | 24    | 1    | 10                              | 317  | 0     | 0    | 0                    | 0    | 0     | 0    | 11                   | 0    | 3     | 0    | 365   |
| 17:00 - 17:15               | 0                               | 0    | 28    | 1    | 4                               | 234  | 0     | 0    | 0                    | 0    | 0     | 0    | 14                   | 0    | 9     | 0    | 289   |
| 17:15 - 17:30               | 0                               | 0    | 34    | 1    | 4                               | 297  | 0     | 0    | 0                    | 0    | 0     | 0    | 12                   | 0    | 9     | 0    | 356   |
| 17:30 - 17:45               | 0                               | 1    | 32    | 1    | 4                               | 250  | 0     | 0    | 0                    | 0    | 0     | 0    | 15                   | 0    | 2     | 0    | 304   |
| 17:45 - 18:00               | 0                               | 1    | 25    | 2    | 2                               | 270  | 0     | 0    | 0                    | 0    | 0     | 0    | 11                   | 0    | 4     | 0    | 313   |

# TrafficCounts

2364 North 1450 East  
Lehi, UT 84043  
801.636.0891

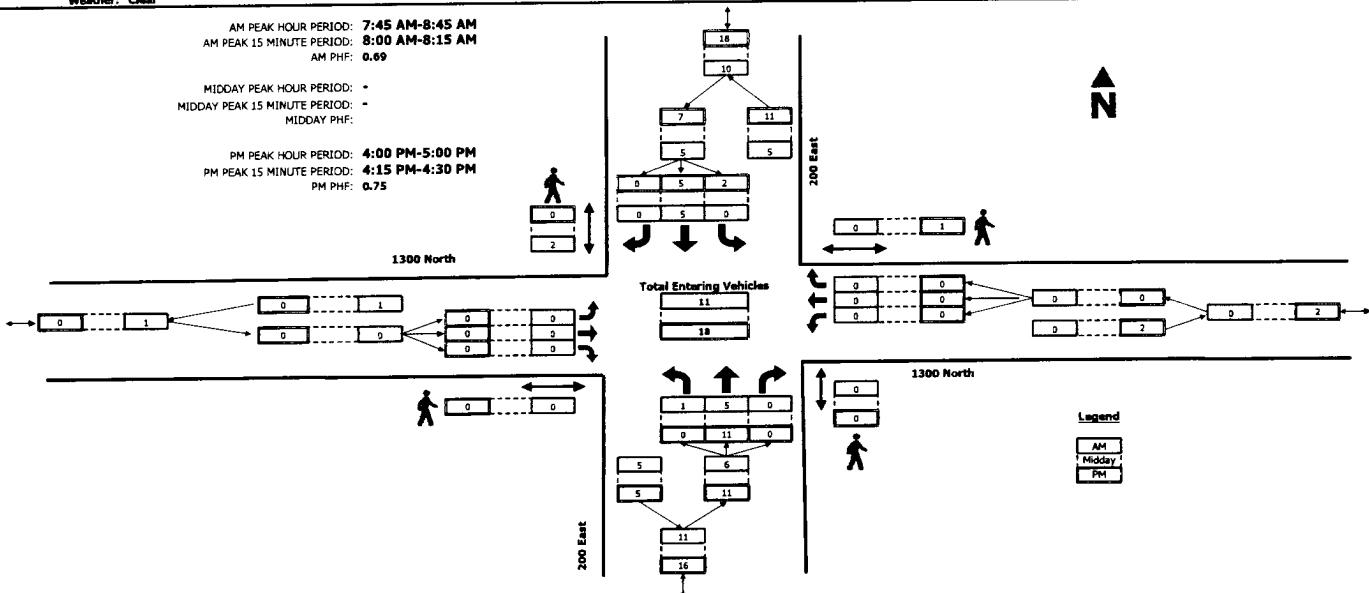
## Intersection Turning Movement Summary

Intersection: 200 East / 1300 North  
North/South: 200 East  
East/West: 1300 North  
Jurisdiction: Harrisville  
Project Title: 1400 N Washington Boulevard TIS  
Project No: UT21-1910  
Weather: Clear

Date: 5-26-21, Wed  
COVID-19 Adjustment: 95.7%  
Month of Year Adjustment: 100.0%  
Adjustment Station #: 0  
Growth Rate: 0.0%  
Number of Years: 0

AM PEAK HOUR PERIOD: 7:45 AM-8:45 AM  
AM PEAK 15 MINUTE PERIOD: 8:00 AM-8:15 AM  
AM PHF: 0.69  
  
MIDDAY PEAK HOUR PERIOD: -  
MIDDAY PEAK 15 MINUTE PERIOD: -  
MIDDAY PHF: -

PM PEAK HOUR PERIOD: 4:00 PM-5:00 PM  
PM PEAK 15 MINUTE PERIOD: 4:15 PM-4:30 PM  
PM PHF: 0.75



| RAW COUNT SUMMARIES         | 200 East Northbound |      |       |      | 200 East Southbound |      |       |      | 1300 North Eastbound |      |       |      | 1300 North Westbound |      |       |      | TOTAL |   |
|-----------------------------|---------------------|------|-------|------|---------------------|------|-------|------|----------------------|------|-------|------|----------------------|------|-------|------|-------|---|
|                             | Left                | Thru | Right | Peds | Left                | Thru | Right | Peds | Left                 | Thru | Right | Peds | Left                 | Thru | Right | Peds |       |   |
| <b>AM PERIOD COUNTS</b>     |                     |      |       |      |                     |      |       |      |                      |      |       |      |                      |      |       |      |       |   |
| Period                      | A                   | B    | C     | D    | E                   | F    | G     | H    | I                    | J    | K     | L    | M                    | N    | O     | P    | TOTAL |   |
| 7:00 - 7:15                 | 0                   | 0    | 0     | 0    | 0                   | 1    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 1     | 2 |
| 7:15 - 7:30                 | 0                   | 0    | 0     | 0    | 0                   | 3    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 3 |
| 7:30 - 7:45                 | 0                   | 0    | 0     | 0    | 0                   | 1    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 1 |
| 7:45 - 8:00                 | 0                   | 2    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 2 |
| 8:00 - 8:15                 | 1                   | 0    | 0     | 0    | 0                   | 3    | 0     | 1    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 4 |
| 8:15 - 8:30                 | 0                   | 1    | 0     | 0    | 0                   | 2    | 0     | 1    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 3 |
| 8:30 - 8:45                 | 0                   | 2    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 2 |
| 8:45 - 9:00                 | 0                   | 1    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 1    | 0     | 1 |
| <b>MIDDAY PERIOD COUNTS</b> |                     |      |       |      |                     |      |       |      |                      |      |       |      |                      |      |       |      |       |   |
| Period                      | A                   | B    | C     | D    | E                   | F    | G     | H    | I                    | J    | K     | L    | M                    | N    | O     | P    | TOTAL |   |
| 9:00 - 9:15                 | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 9:15 - 9:30                 | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 9:30 - 9:45                 | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 9:45 - 10:00                | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 10:00 - 10:15               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 10:15 - 10:30               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 10:30 - 10:45               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 10:45 - 11:00               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 11:00 - 11:15               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 11:15 - 11:30               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 11:30 - 11:45               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 11:45 - 12:00               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 12:00 - 12:15               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 12:15 - 12:30               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 12:30 - 12:45               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 12:45 - 13:00               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 13:00 - 13:15               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 13:15 - 13:30               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 13:30 - 13:45               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 13:45 - 14:00               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 14:00 - 14:15               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 14:15 - 14:30               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 14:30 - 14:45               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 14:45 - 15:00               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 15:00 - 15:15               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 15:15 - 15:30               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 15:30 - 15:45               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| 15:45 - 16:00               | 0                   | 0    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0     | 0 |
| <b>PM PERIOD COUNTS</b>     |                     |      |       |      |                     |      |       |      |                      |      |       |      |                      |      |       |      |       |   |
| Period                      | A                   | B    | C     | D    | E                   | F    | G     | H    | I                    | J    | K     | L    | M                    | N    | O     | P    | TOTAL |   |
| 16:00 - 16:15               | 0                   | 5    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 1    | 5     |   |
| 16:15 - 16:30               | 0                   | 1    | 0     | 0    | 1                   | 4    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 6     |   |
| 16:30 - 16:45               | 0                   | 2    | 0     | 0    | 0                   | 1    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 4     |   |
| 16:45 - 17:00               | 0                   | 3    | 0     | 0    | 1                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 4     |   |
| 17:00 - 17:15               | 1                   | 1    | 1     | 0    | 0                   | 1    | 0     | 2    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 3     |   |
| 17:15 - 17:30               | 0                   | 3    | 0     | 0    | 0                   | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 3     |   |
| 17:30 - 17:45               | 0                   | 2    | 0     | 3    | 0                   | 1    | 0     | 0    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 3     |   |
| 17:45 - 18:00               | 0                   | 1    | 0     | 0    | 0                   | 0    | 0     | 2    | 0                    | 0    | 0     | 0    | 0                    | 0    | 0     | 0    | 1     |   |

# APPENDIX B

## LOS Results

### SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Existing (2021) Background  
**Time Period:** Evening Peak Hour **Project #:** UT21-1910

**Intersection:** Washington Blvd & Lockwood Dr  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |     | Delay/Veh (sec) |     |
|--------------|----------|---------------|---------------|-----|-----------------|-----|
|              |          |               | Avg           | %   | Avg             | LOS |
| NB           | L        | 4             | 3             | 75  | 7.2             | A   |
|              | T        | 1,420         | 1,446         | 102 | 1.4             | A   |
|              | R        | 99            | 104           | 105 | 0.8             | A   |
|              | Subtotal | 1,523         | 1,553         | 102 | 1.4             | A   |
| SB           | L        | 71            | 68            | 95  | 13.8            | B   |
|              | T        | 1,239         | 1,251         | 101 | 0.8             | A   |
|              | R        | 2             | 3             | 150 | 0.1             | A   |
|              | Subtotal | 1,312         | 1,322         | 101 | 1.5             | A   |
| EB           | L        | 4             | 4             | 100 | 128.9           | F   |
|              | R        | 13            | 14            | 106 | 23.5            | C   |
|              | Subtotal | 17            | 18            | 106 | 46.9            | E   |
| WB           | L        | 33            | 26            | 79  | 490.1           | F   |
|              | R        | 53            | 45            | 85  | 434.7           | F   |
|              | Subtotal | 86            | 71            | 83  | 455.0           | F   |
| <b>Total</b> |          | 2,938         | 2,964         | 101 | 14.6            | B   |

**Intersection:** Washington Blvd & 1225 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |     | Delay/Veh (sec) |     |
|--------------|----------|---------------|---------------|-----|-----------------|-----|
|              |          |               | Avg           | %   | Avg             | LOS |
| NB           | T        | 1,504         | 1,539         | 102 | 0.9             | A   |
|              | R        | 97            | 101           | 104 | 0.9             | A   |
|              | Subtotal | 1,601         | 1,640         | 102 | 0.9             | A   |
| SB           | L        | 25            | 27            | 109 | 13.2            | B   |
|              | T        | 1,261         | 1,266         | 100 | 1.0             | A   |
|              | Subtotal | 1,286         | 1,293         | 101 | 1.3             | A   |
| WB           | L        | 47            | 33            | 71  | 784.8           | F   |
|              | R        | 18            | 11            | 62  | 738.9           | F   |
|              | Subtotal | 65            | 44            | 68  | 773.3           | F   |
| <b>Total</b> |          | 2,951         | 2,977         | 101 | 18.7            | C   |



## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Existing (2021) Background  
**Time Period:** Evening Peak Hour **Project #:** UT21-1910

**Intersection:** 200 East & 1300 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |     | Delay/Veh (sec) |     |
|--------------|----------|---------------|---------------|-----|-----------------|-----|
|              |          |               | Avg           | %   | Avg             | LOS |
| NB           | T        | 11            | 10            | 89  | 0.0             | A   |
|              | R        | 2             | 3             | 150 | 0.0             | A   |
|              | Subtotal | 13            | 13            | 100 | 0.0             | A   |
| SB           | L        | 2             | 1             | 50  | 2.3             | A   |
|              | T        | 5             | 6             | 120 | 0.0             | A   |
|              | Subtotal | 7             | 7             | 100 | 0.3             | A   |
| WB           | L        | 2             | 1             | 50  | 3.9             | A   |
|              | R        | 2             | 2             | 100 | 2.1             | A   |
|              | Subtotal | 4             | 3             | 75  | 2.7             | A   |
| <b>Total</b> |          | 24            | 23            | 95  | 0.5             | A   |

## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Mitigated Existing (2021) Background  
**Time Period:** Evening Peak Hour **Project #:** UT21-1910

**Intersection:** Washington Blvd & Lockwood Dr  
**Type:** Signalized

| Approach     | Movement | Demand Volume | Volume Served |            | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|------------|-----------------|----------|
|              |          |               | Avg           | %          | Avg             | LOS      |
| NB           | L        | 4             | 4             | 100        | 11.8            | B        |
|              | T        | 1,420         | 1,401         | 99         | 4.3             | A        |
|              | R        | 99            | 97            | 98         | 1.8             | A        |
|              | Subtotal | 1,523         | 1,502         | 99         | 4.2             | A        |
| SB           | L        | 71            | 66            | 93         | 23.1            | C        |
|              | T        | 1,239         | 1,270         | 103        | 3.6             | A        |
|              | R        | 2             | 2             | 100        | 1.2             | A        |
|              | Subtotal | 1,312         | 1,338         | 102        | 4.6             | A        |
| EB           | L        | 4             | 3             | 75         | 44.6            | D        |
|              | R        | 13            | 15            | 113        | 10.0            | A        |
|              | Subtotal | 17            | 18            | 106        | 15.8            | B        |
| WB           | L        | 33            | 34            | 103        | 43.7            | D        |
|              | R        | 53            | 55            | 104        | 19.2            | B        |
|              | Subtotal | 86            | 89            | 103        | 28.6            | C        |
| <b>Total</b> |          | <b>2,938</b>  | <b>2,947</b>  | <b>100</b> | <b>5.2</b>      | <b>A</b> |

**Intersection:** Washington Blvd & 1225 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |            | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|------------|-----------------|----------|
|              |          |               | Avg           | %          | Avg             | LOS      |
| NB           | T        | 1,504         | 1,486         | 99         | 0.8             | A        |
|              | R        | 97            | 97            | 100        | 0.8             | A        |
|              | Subtotal | 1,601         | 1,583         | 99         | 0.8             | A        |
| SB           | L        | 25            | 25            | 101        | 15.1            | C        |
|              | T        | 1,261         | 1,293         | 103        | 1.9             | A        |
|              | Subtotal | 1,286         | 1,318         | 102        | 2.2             | A        |
| WB           | L        | <b>47</b>     | <b>38</b>     | <b>81</b>  | <b>493.9</b>    | <b>F</b> |
|              | R        | 18            | 15            | 85         | 463.8           | F        |
|              | Subtotal | 65            | 53            | 82         | 485.4           | F        |
| <b>Total</b> |          | <b>2,951</b>  | <b>2,954</b>  | <b>100</b> | <b>12.0</b>     | <b>B</b> |

### SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Mitigated Existing (2021) Background  
**Time Period:** Evening Peak Hour Project #: UT21-1910

**Intersection:** 200 East & 1300 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |     | Delay/Veh (sec) |     |
|--------------|----------|---------------|---------------|-----|-----------------|-----|
|              |          |               | Avg           | %   | Avg             | LOS |
| NB           | T        | 11            | 12            | 107 | 0.0             | A   |
|              | R        | 2             | 2             | 100 | 0.0             | A   |
|              | Subtotal | 13            | 14            | 108 | 0.0             | A   |
| SB           | L        | 2             | 2             | 100 | 1.4             | A   |
|              | T        | 5             | 4             | 80  | 0.0             | A   |
|              | Subtotal | 7             | 6             | 86  | 0.5             | A   |
| WB           | L        | 2             | 2             | 100 | 3.3             | A   |
|              | R        | 2             | 2             | 100 | 3.4             | A   |
|              | Subtotal | 4             | 4             | 100 | 3.4             | A   |
| <b>Total</b> |          | 24            | 24            | 99  | 0.7             | A   |

## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Existing (2021) Plus Project  
**Time Period:** Evening Peak Hour Project #: UT21-1910

**Intersection:** Washington Blvd & Lockwood Dr  
**Type:** Signalized

| Approach     | Movement | Demand Volume | Volume Served |            | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|------------|-----------------|----------|
|              |          |               | Avg           | %          | Avg             | LOS      |
| NB           | L        | 4             | 3             | 75         | 12.5            | B        |
|              | T        | 1,468         | 1,464         | 100        | 3.9             | A        |
|              | R        | 99            | 93            | 94         | 1.5             | A        |
|              | Subtotal | 1,571         | 1,560         | 99         | 3.8             | A        |
| SB           | L        | 71            | 72            | 101        | 24.5            | C        |
|              | T        | 1,265         | 1,274         | 101        | 3.9             | A        |
|              | R        | 2             | 3             | 150        | 1.0             | A        |
|              | Subtotal | 1,338         | 1,349         | 101        | 5.0             | A        |
| EB           | L        | 4             | 3             | 75         | 41.6            | D        |
|              | R        | 13            | 14            | 106        | 7.4             | A        |
|              | Subtotal | 17            | 17            | 100        | 13.4            | B        |
| WB           | L        | 33            | 32            | 97         | 41.8            | D        |
|              | R        | 53            | 52            | 99         | 17.9            | B        |
|              | Subtotal | 86            | 84            | 98         | 27.0            | C        |
| <b>Total</b> |          | <b>3,013</b>  | <b>3,010</b>  | <b>100</b> | <b>5.0</b>      | <b>A</b> |

**Intersection:** Washington Blvd & 1225 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |           | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|-----------|-----------------|----------|
|              |          |               | Avg           | %         | Avg             | LOS      |
| NB           | T        | 1,540         | 1,526         | 99        | 0.9             | A        |
|              | R        | 97            | 101           | 104       | 0.9             | A        |
|              | Subtotal | 1,637         | 1,627         | 99        | 0.9             | A        |
| SB           | L        | 25            | 24            | 97        | 10.9            | B        |
|              | T        | 1,313         | 1,322         | 101       | 0.9             | A        |
|              | Subtotal | 1,338         | 1,346         | 101       | 1.1             | A        |
| WB           | L        | <b>47</b>     | <b>36</b>     | <b>77</b> | <b>514.1</b>    | <b>F</b> |
|              | R        | 18            | 13            | 73        | 504.3           | F        |
|              | Subtotal | 65            | 49            | 75        | 511.5           | F        |
| <b>Total</b> |          | <b>3,039</b>  | <b>3,022</b>  | <b>99</b> | <b>12.0</b>     | <b>B</b> |

## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Existing (2021) Plus Project  
**Time Period:** Evening Peak Hour Project #: UT21-1910

**Intersection:** 200 East & 1300 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |           | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|-----------|-----------------|----------|
|              |          |               | Avg           | %         | Avg             | LOS      |
| NB           | T        | 11            | 11            | 98        | 0.1             | A        |
|              | R        | 14            | 17            | 119       | 0.0             | A        |
|              | Subtotal | 25            | 28            | 112       | 0.0             | A        |
| SB           | L        | 2             | 2             | 100       | 1.6             | A        |
|              | T        | 5             | 5             | 100       | 0.1             | A        |
|              | Subtotal | 7             | 7             | 100       | 0.5             | A        |
| WB           | L        | <b>11</b>     | <b>10</b>     | <b>89</b> | <b>4.1</b>      | <b>A</b> |
|              | R        | 2             | 2             | 100       | 2.6             | A        |
|              | Subtotal | 13            | 12            | 92        | 3.9             | A        |
|              |          |               |               |           |                 |          |
| <b>Total</b> |          | 46            | 47            | 103       | 1.1             | A        |

**Intersection:** Washington Blvd & South Access  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |            | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|------------|-----------------|----------|
|              |          |               | Avg           | %          | Avg             | LOS      |
| NB           | L        | 36            | 34            | 94         | 9.3             | A        |
|              | T        | 1,553         | 1,538         | 99         | 0.9             | A        |
|              | Subtotal | 1,589         | 1,572         | 99         | 1.1             | A        |
| SB           | T        | 1,310         | 1,324         | 101        | 1.6             | A        |
|              | R        | 26            | 25            | 96         | 0.8             | A        |
|              | Subtotal | 1,336         | 1,349         | 101        | 1.6             | A        |
| EB           | L        | <b>20</b>     | <b>20</b>     | <b>101</b> | <b>212.2</b>    | <b>F</b> |
|              | R        | 27            | 27            | 100        | 9.3             | A        |
|              | Subtotal | 47            | 47            | 100        | 95.6            | F        |
|              |          |               |               |            |                 |          |
| <b>Total</b> |          | 2,972         | 2,968         | 100        | 2.9             | A        |

## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Future (2026) Background  
**Time Period:** Evening Peak Hour **Project #:** UT21-1910

**Intersection:** Washington Blvd & Lockwood Dr  
**Type:** Signalized

| Approach     | Movement | Demand Volume | Volume Served |            | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|------------|-----------------|----------|
|              |          |               | Avg           | %          | Avg             | LOS      |
| NB           | L        | 5             | 4             | 80         | 19.5            | B        |
|              | T        | 1,521         | 1,500         | 99         | 5.0             | A        |
|              | R        | 100           | 102           | 102        | 2.3             | A        |
|              | Subtotal | 1,626         | 1,606         | 99         | 4.9             | A        |
| SB           | L        | 75            | 76            | 101        | 29.0            | C        |
|              | T        | 1,295         | 1,309         | 101        | 4.2             | A        |
|              | R        | 5             | 7             | 140        | 1.8             | A        |
|              | Subtotal | 1,375         | 1,392         | 101        | 5.5             | A        |
| EB           | L        | 5             | 4             | 80         | 53.2            | D        |
|              | R        | 15            | 15            | 98         | 10.3            | B        |
|              | Subtotal | 20            | 19            | 95         | 19.3            | B        |
| WB           | L        | 35            | 36            | 103        | 42.1            | D        |
|              | R        | 55            | 54            | 99         | 20.9            | C        |
|              | Subtotal | 90            | 90            | 100        | 29.4            | C        |
| <b>Total</b> |          | <b>3,112</b>  | <b>3,107</b>  | <b>100</b> | <b>6.0</b>      | <b>A</b> |

**Intersection:** Washington Blvd & 1225 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |           | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|-----------|-----------------|----------|
|              |          |               | Avg           | %         | Avg             | LOS      |
| NB           | T        | 1,605         | 1,590         | 99        | 0.9             | A        |
|              | R        | 100           | 102           | 102       | 0.8             | A        |
|              | Subtotal | 1,705         | 1,692         | 99        | 0.9             | A        |
| SB           | L        | 30            | 32            | 107       | 17.9            | C        |
|              | T        | 1,316         | 1,330         | 101       | 2.1             | A        |
|              | Subtotal | 1,346         | 1,362         | 101       | 2.5             | A        |
| WB           | L        | <b>50</b>     | <b>29</b>     | <b>58</b> | <b>920.9</b>    | <b>F</b> |
|              | R        | 20            | 14            | 71        | 860.8           | F        |
|              | Subtotal | 70            | 43            | 61        | 901.3           | F        |
| <b>Total</b> |          | <b>3,121</b>  | <b>3,097</b>  | <b>99</b> | <b>22.0</b>     | <b>C</b> |

### SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Future (2026) Background  
**Time Period:** Evening Peak Hour Project #: UT21-1910

**Intersection:** 200 East & 1300 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |     | Delay/Veh (sec) |     |
|--------------|----------|---------------|---------------|-----|-----------------|-----|
|              |          |               | Avg           | %   | Avg             | LOS |
| NB           | T        | 15            | 13            | 85  | 0.0             | A   |
|              | R        | 5             | 5             | 100 | 0.0             | A   |
|              | Subtotal | 20            | 18            | 90  | 0.0             | A   |
| SB           | L        | 5             | 3             | 60  | 1.7             | A   |
|              | T        | 10            | 10            | 98  | 0.0             | A   |
|              | Subtotal | 15            | 13            | 87  | 0.4             | A   |
| WB           | L        | 5             | 4             | 80  | 4.2             | A   |
|              | R        | 5             | 5             | 100 | 2.5             | A   |
|              | Subtotal | 10            | 9             | 90  | 3.3             | A   |
| <b>Total</b> |          | 46            | 40            | 88  | 0.9             | A   |

## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Future (2026) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT21-1910

**Intersection:** Washington Blvd & North Access/Lockwood Dr  
**Type:** Signalized

| Approach     | Movement | Demand Volume | Volume Served |            | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|------------|-----------------|----------|
|              |          |               | Avg           | %          | Avg             | LOS      |
| NB           | L        | 80            | 81            | 102        | 30.3            | C        |
|              | T        | 1,572         | 1,566         | 100        | 6.9             | A        |
|              | R        | 100           | 104           | 104        | 2.9             | A        |
|              | Subtotal | 1,752         | 1,751         | 100        | 7.7             | A        |
| SB           | L        | 75            | 78            | 104        | 38.4            | D        |
|              | T        | 1,321         | 1,320         | 100        | 6.7             | A        |
|              | R        | 58            | 58            | 100        | 1.8             | A        |
|              | Subtotal | 1,454         | 1,456         | 100        | 8.2             | A        |
| EB           | L        | 58            | 52            | 90         | 41.5            | D        |
|              | R        | 80            | 80            | 100        | 22.0            | C        |
|              | Subtotal | 138           | 132           | 96         | 29.7            | C        |
| WB           | L        | 35            | 33            | 94         | 38.6            | D        |
|              | R        | 55            | 54            | 99         | 18.7            | B        |
|              | Subtotal | 90            | 87            | 97         | 26.2            | C        |
| <b>Total</b> |          | <b>3,433</b>  | <b>3,426</b>  | <b>100</b> | <b>9.3</b>      | <b>A</b> |

**Intersection:** Washington Blvd & 1225 North  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |           | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|-----------|-----------------|----------|
|              |          |               | Avg           | %         | Avg             | LOS      |
| NB           | T        | 1,716         | 1,714         | 100       | 1.1             | A        |
|              | R        | 100           | 103           | 103       | 0.9             | A        |
|              | Subtotal | 1,816         | 1,817         | 100       | 1.1             | A        |
| SB           | L        | 30            | 29            | 97        | 17.2            | C        |
|              | T        | 1,435         | 1,432         | 100       | 1.0             | A        |
|              | Subtotal | 1,465         | 1,461         | 100       | 1.3             | A        |
| WB           | L        | <b>50</b>     | <b>29</b>     | <b>58</b> | <b>993.0</b>    | <b>F</b> |
|              | R        | 20            | 13            | 66        | 841.6           | F        |
|              | Subtotal | 70            | 42            | 60        | 946.1           | F        |
| <b>Total</b> |          | <b>3,351</b>  | <b>3,320</b>  | <b>99</b> | <b>21.2</b>     | <b>C</b> |



## SimTraffic LOS Report

**Project:** Harrisville - 1400 N Washington Boulevard TIS  
**Analysis Period:** Future (2026) Plus Project  
**Time Period:** Evening Peak Hour **Project #: UT21-1910**

**Intersection:** 200 East & 1300 North  
**Type:** Unsignalized

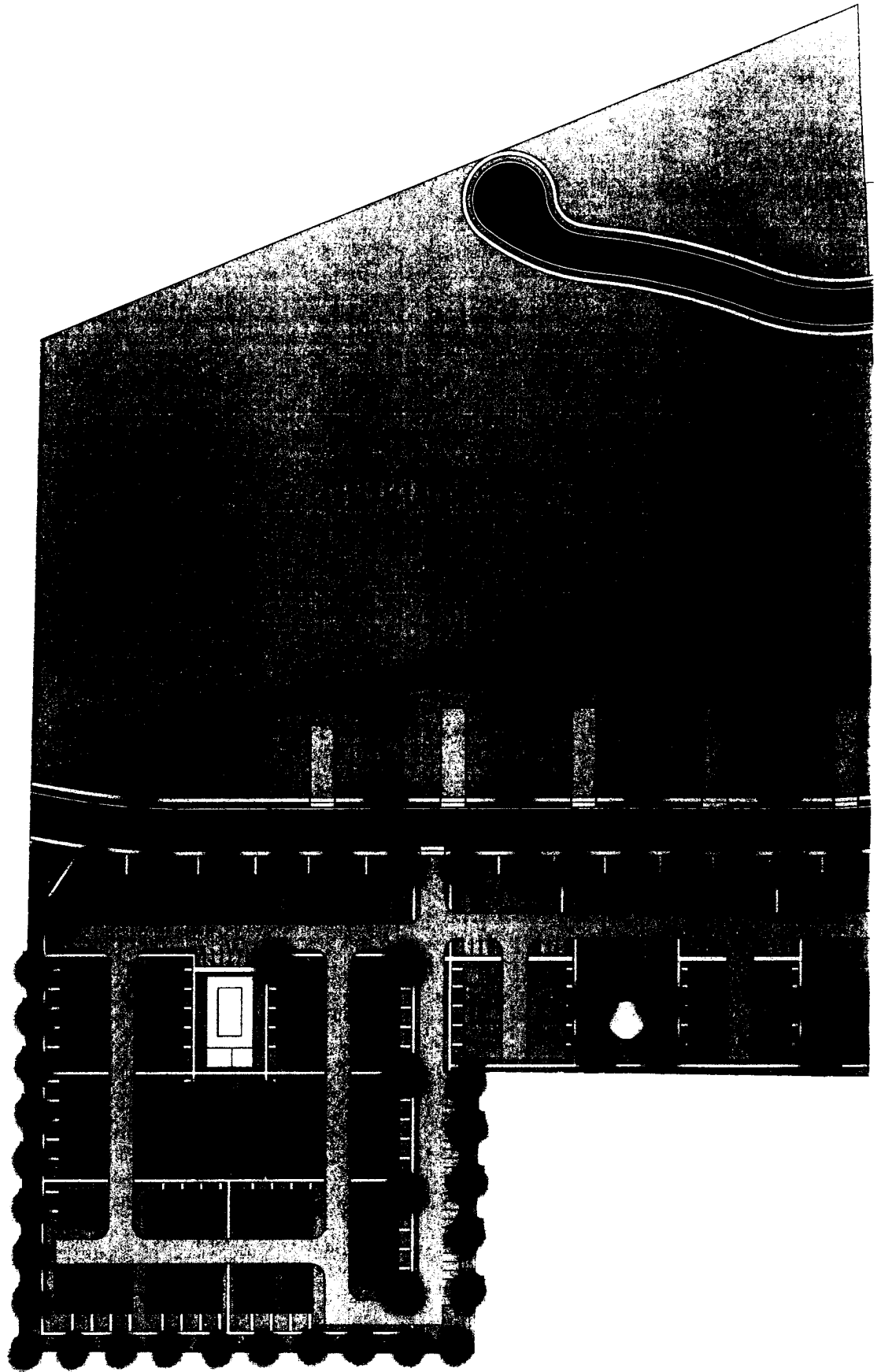
| Approach     | Movement | Demand Volume | Volume Served |           | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|-----------|-----------------|----------|
|              |          |               | Avg           | %         | Avg             | LOS      |
| NB           | T        | 15            | 15            | 98        | 0.1             | A        |
|              | R        | 17            | 16            | 96        | 0.0             | A        |
|              | Subtotal | 32            | 31            | 97        | 0.0             | A        |
| SB           | L        | 5             | 4             | 80        | 1.6             | A        |
|              | T        | 10            | 10            | 98        | 0.0             | A        |
|              | Subtotal | 15            | 14            | 93        | 0.5             | A        |
| WB           | L        | <b>14</b>     | <b>12</b>     | <b>84</b> | <b>4.1</b>      | <b>A</b> |
|              | R        | 5             | 6             | 120       | 3.0             | A        |
|              | Subtotal | 19            | 18            | 95        | 3.7             | A        |
| <b>Total</b> |          | 66            | 63            | 95        | 1.2             | A        |

**Intersection:** Washington Blvd & South Access  
**Type:** Unsignalized

| Approach     | Movement | Demand Volume | Volume Served |           | Delay/Veh (sec) |          |
|--------------|----------|---------------|---------------|-----------|-----------------|----------|
|              |          |               | Avg           | %         | Avg             | LOS      |
| NB           | L        | 36            | 34            | 94        | 13.7            | B        |
|              | T        | 1,733         | 1,728         | 100       | 1.3             | A        |
|              | Subtotal | 1,769         | 1,762         | 100       | 1.5             | A        |
| SB           | T        | 1,437         | 1,435         | 100       | 2.3             | A        |
|              | R        | 26            | 26            | 100       | 1.4             | A        |
|              | Subtotal | 1,463         | 1,461         | 100       | 2.3             | A        |
| EB           | L        | <b>20</b>     | <b>16</b>     | <b>81</b> | <b>348.3</b>    | <b>F</b> |
|              | R        | 27            | 24            | 89        | 33.4            | D        |
|              | Subtotal | 47            | 40            | 85        | 159.4           | F        |
| <b>Total</b> |          | 3,279         | 3,263         | 100       | 4.3             | A        |

# APPENDIX C

## Site Plan



# CONCEPT SITE PLAN

# APPENDIX D

## 95<sup>th</sup> Percentile Queue Length Reports

# SimTraffic Queueing Report

Project: Harrisville - 1400 N Washington Boulevard TIS

Analysis: Existing (2021) Background

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



| Intersection                      | NB |    | SB |    | EB  |
|-----------------------------------|----|----|----|----|-----|
|                                   | L  | R  | L  | T  | LTR |
| 01: Washington Blvd & Lockwood Dr | 25 | 25 | 75 | 25 | 75  |
| 02: Washington Blvd & 1225 North  |    | 25 | 50 |    |     |
| 03: 200 East & 1300 North         |    |    |    |    |     |

# SimTraffic Queueing Report

Project: Harrisville - 1400 N Washington Boulevard TIS

Analysis: Mitigated Existing (2021) Background

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



| Intersection                      | NB |    |     | SB  |     |     | EB  |
|-----------------------------------|----|----|-----|-----|-----|-----|-----|
|                                   | L  | R  | T   | L   | T   | TR  | LTR |
| 01: Washington Blvd & Lockwood Dr | 25 | 50 | 175 | 100 | 175 | 125 | 50  |
| 02: Washington Blvd & 1225 North  |    | 25 |     | 50  |     |     |     |
| 03: 200 East & 1300 North         |    |    |     |     |     |     |     |

**SimTraffic Queueing Report**

**HALES**

**ENGINEERING**

innovative transportation solutions

**Project: Harrisville - 1400 N Washington Boulevard TIS**

**Analysis: Existing (2021) Plus Project**

**Time Period: Evening Peak Hour**

**95<sup>th</sup> Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft**

| Intersection                       | NB |    |     | SB  |    |    |     | EB  |     |    |   |    |
|------------------------------------|----|----|-----|-----|----|----|-----|-----|-----|----|---|----|
|                                    | L  | R  | T   | L   | LT | R  | T   | L   | LTR | R  | L |    |
| 01: Washington Blvd & Lockwood Dr  | 25 | 50 | 175 | 100 |    | 25 | 175 |     |     | 50 |   |    |
| 02: Washington Blvd & 1225 North   |    | 25 |     | 50  |    |    |     |     |     |    |   | 50 |
| 03: 200 East & 1300 North          |    |    |     |     | 25 |    |     |     |     |    |   | 50 |
| 04: Washington Blvd & South Access | 50 |    |     |     |    |    |     | 125 |     | 75 |   |    |

# SimTraffic Queueing Report

Project: Harrisville - 1400 N Washington Boulevard TIS

Analysis: Future (2026) Background

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



| Intersection                      | NB |    |     | SB  |     |     | EB  |
|-----------------------------------|----|----|-----|-----|-----|-----|-----|
|                                   | L  | R  | T   | L   | T   | TR  | LTR |
| 01: Washington Blvd & Lockwood Dr | 25 | 75 | 175 | 100 | 175 | 150 | 50  |
| 02: Washington Blvd & 1225 North  |    | 25 |     | 75  |     |     |     |
| 03: 200 East & 1300 North         |    |    |     |     |     |     |     |



# SimTraffic Queueing Report

Project: Harrisville - 1400 N Washington Boulevard TIS

Analysis: Future (2026) Plus Project

Time Period: Evening Peak Hour

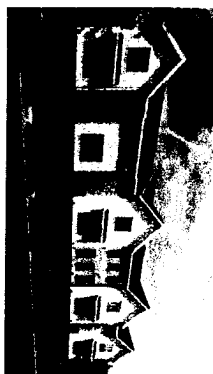
95<sup>th</sup> Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



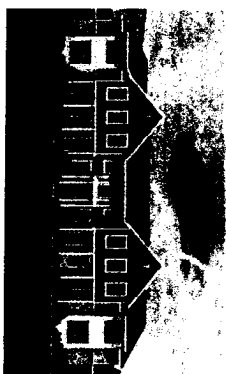
| Intersection                                   | NB  |     |     | SB  |    |    |     | E  |   |     |
|--|-----|-----|-----|-----|----|----|-----|----|---|-----|
|  | L   | R   | T   | L   | LT | R  | T   | TR | L | LTR |
| 01: Washington Blvd & North Access/Lockwood Dr | 100 | 100 | 225 | 125 |    | 50 | 200 |    |   | 150 |
| 02: Washington Blvd & 1225 North               |     | 25  |     | 50  |    |    |     |    |   |     |
| 03: 200 East & 1300 North                      |     |     |     |     | 25 |    |     |    |   |     |
| 04: Washington Blvd & South Access             | 50  |     | 25  |     |    |    | 25  | 25 |   | 175 |

HARRISVILLE TOWNHOMI  
COMMUNITY

3 STORY TOWNHOME  
(2 CAR GARAGE)  
133 UNITS

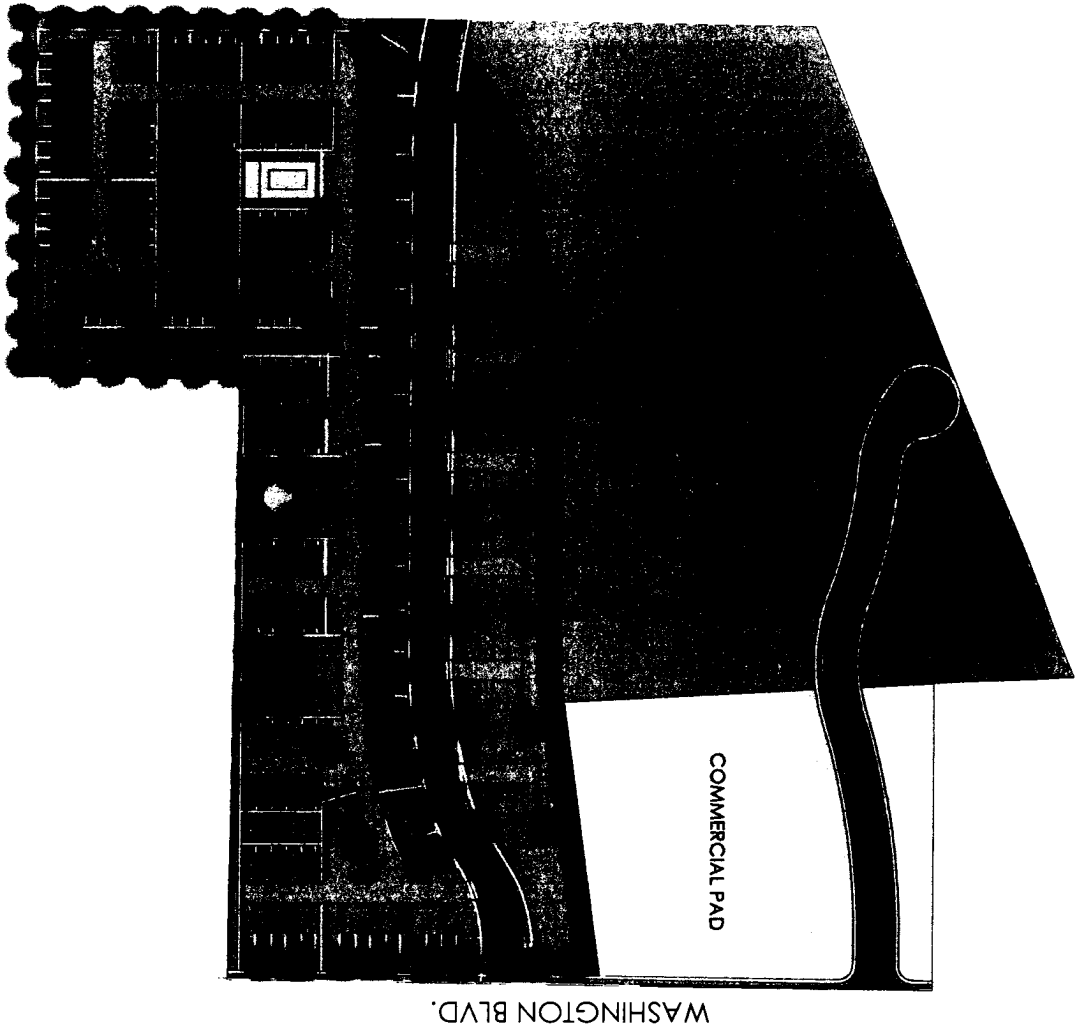


2 STORY REAR-LOAD TOWNHOME  
(2 CAR GARAGE)  
82 UNITS



PUBLIC STREETS  
PRIVATE STREETS

PARKING:  
430 STALLS PROVIDED INSIDE GARAGES  
ADDITIONAL VISITER PARKING



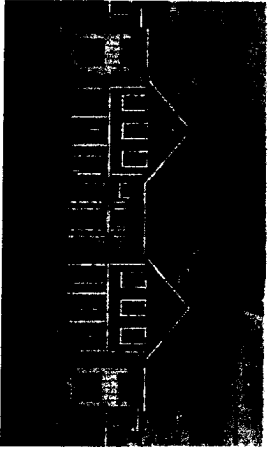
CONCEPT SITE PLAN

# HARRISVILLE TOWNHOME COMMUNITY

3 STORY TOWNHOME  
(2 CAR GARAGE)  
133 UNITS



2 STORY REAR-LOAD TOWNHOME  
(2 CAR GARAGE)  
82 UNITS



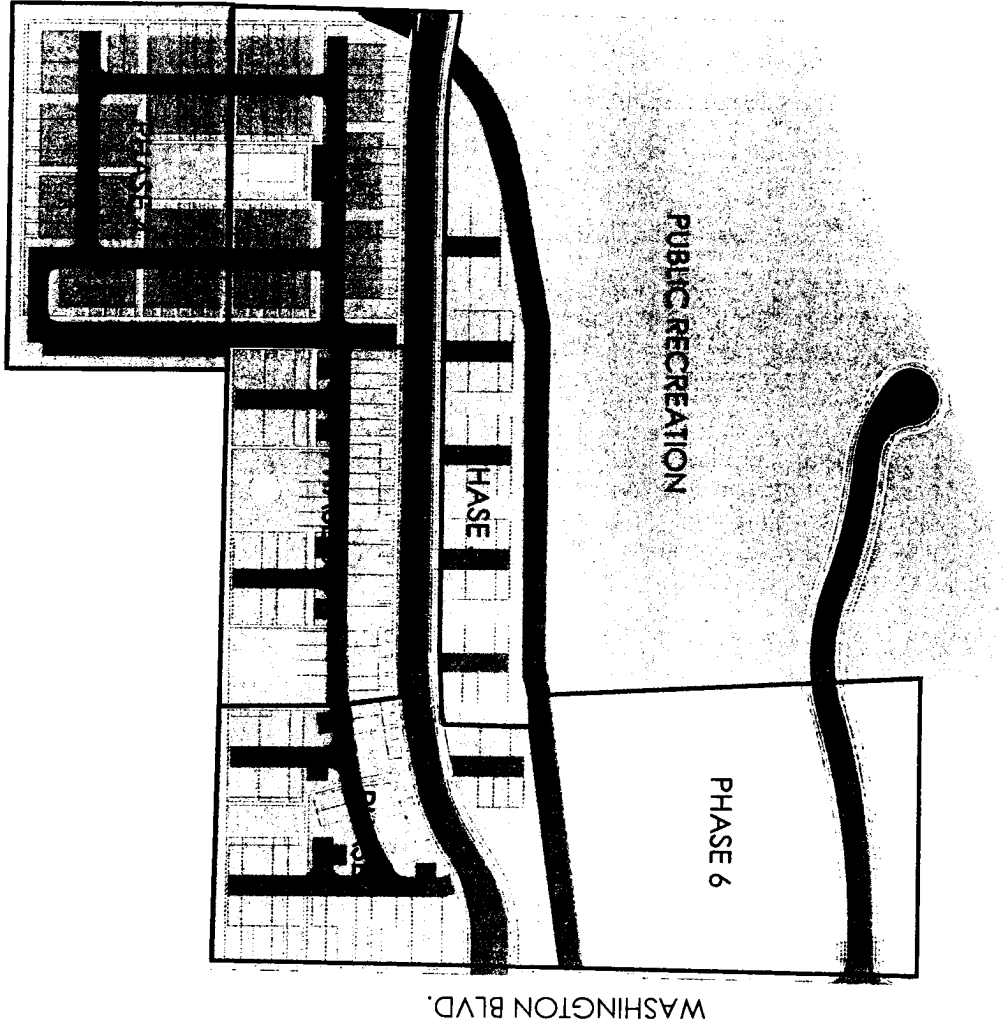
PUBLIC STREETS

PRIVATE STREETS

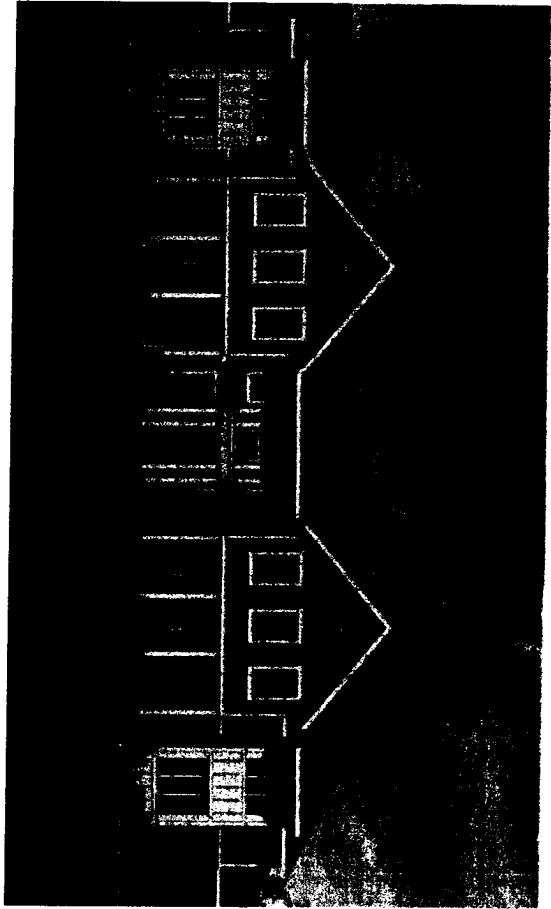
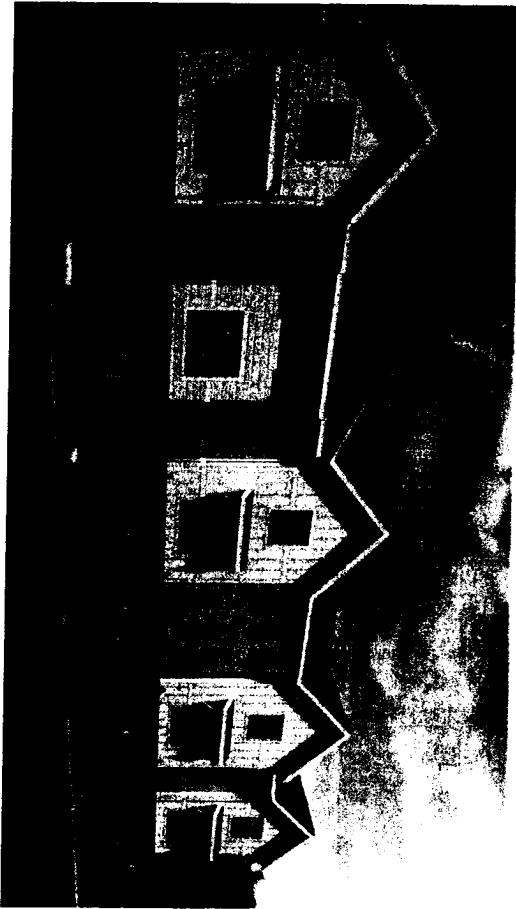
## PARKING:

430 STALLS PROVIDED INSIDE GARAGES  
ADDITIONAL VISITER PARKING

# PHASING PLAN



ARCHITECTURE



**ARTICLES OF INCORPORATION**

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**(NON-PROFIT)**

Nathan W. Pugsley, the undersigned natural person over the age of twenty-one years, acting as incorporator of a non-profit corporation pursuant to the Utah Nonprofit Corporation Act, hereby adopts the following Articles of Incorporation for said corporation:

**ARTICLE I**  
**NAME**

The name of the nonprofit corporation is \_\_\_\_\_, INC., hereinafter the "Association".

**ARTICLE II**  
**DURATION**

The duration of the Association shall be perpetual unless earlier dissolved pursuant to law.

**ARTICLE III**  
**PURPOSES**

The Corporation is organized exclusively for non-profit purposes, and the specific purposes for which this non-profit corporation is organized are to manage, operate, insure, construct, improve, repair, alter and maintain the Common Areas and to provide certain facilities, services and other benefits to the Owners (as defined in the Declaration, as herein after described and defined) within that real property located in Davis County, State of Utah, more particularly described in the Declaration, and to promote the health, safety and welfare of the residents within the above described real property and any additions thereto as may hereafter be brought within the jurisdiction of this Association. For this purpose, the Association is authorized to:

(a) Exercise all of the powers and privileges and to perform all of the duties and obligations of the Association as set forth in that certain "Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for \_\_\_\_\_" recorded at the Weber County Recorder's Office, and other Declarations or Amended Declarations (collectively, the "Declaration"), and Bylaws which may be recorded from time to time;

(b) Fix, levy, collect and enforce payment by any lawful means, all charges or assessments pursuant to the terms of the Declaration; to pay all expenses in connection therewith and all office and other expenses incident to the conduct of business of the Association, including all licenses, taxes or governmental charges levied or imposed against the property of the Association;

(c) Acquire (by gift, purchase, or otherwise) own, hold, improve, build upon, operate, maintain, convey, sell, lease, transfer, dedicate for public use or otherwise dispose of real or personal property in connection with the affairs of the Association;

(d) Borrow money, and with the assent of Owners, mortgage, pledge, or hypothecate any or all of its real or personal property as security for money borrowed or debts incurred;

(e) Have and to exercise any and all powers, rights and privileges which a corporation organized under the Non-Profit Corporation Act of the State of Utah may now or hereafter have or exercise.

**ARTICLE IV**  
**MEMBERSHIP**

The Association shall not issue shares of stock but shall have members. Subject to the terms of the Declaration, every person or entity who is a record Owner of any Lot (as defined in the Declaration) shall be a member of the Association. Persons or entities who hold an interest in any Lot merely as security for the performance of an obligation shall not be members of the Association. Membership shall be appurtenant to and may not be separated from ownership of any Lot which is subject to assessment by the Association.

**ARTICLE V**  
**VOTING RIGHTS**

Each member shall have the voting rights as allocated by the Declaration.

**ARTICLE VI**  
**BOARD OF DIRECTORS**

The affairs of the Association shall be managed by the Board of Directors which shall consist of at least Three (3) members, who must be individual unit owners or the legal agents or representatives of institutional unit owners. The names and addresses of the persons who are to act in the capacity as the Board of Directors until the selection of their successors are:

Name

Address

\_\_\_\_\_

45 E Center Street. #103  
North Salt Lake, UT 84054

\_\_\_\_\_

45 E Center Street. #103  
North Salt Lake, UT 84054

45 E Center Street. #103  
North Salt Lake, UT 84054

Two Members shall be elected to a one (1) year term, and one shall be elected for two (2) year terms.

**ARTICLE VII**  
**DISSOLUTION**

The incorporated Association may be dissolved in accordance with Utah law and the Declaration. Upon dissolution, the assets of the corporation shall be divided among all of its members.

**ARTICLE VIII**  
**REGISTERED OFFICE AND AGENT**

The address of the initial designated and registered office of the Corporation is 215 North Redwood Rd. #8 North Salt Lake, UT 84054 and the name of the registered agent at such address is Patrick Scott.

**ARTICLE IX**  
**CORPORATION POWERS**

The Corporation shall have such powers and authority as are provided by Statute, Section 16-16a-101, et seq. Specifically, the Corporation shall have power and authority to sue or be sued and defend in the Corporate name; maintain a corporate seal; receive gifts, devisees, bequests or personal and real property, to purchase or lease personal or real property and to otherwise acquire, hold, improve, use, and possess the same; to convey, mortgage, pledge, lease, exchange, transfer, bargain, or otherwise dispose of any or all of its property and assets; to conduct its normal and ordinary affairs, transact business, and carry on operations with such offices as are necessary within the State of Utah or the Continental United States; to elect the Board of Directors, and to appoint officers and agents of the Corporation and to define, by bylaw and otherwise, the duties and compensation of said officers and agents; to make and later by-laws and resolutions, not otherwise inconsistent with the Articles of Incorporation, the Declaration or the laws of the State of Utah for the administration of the affairs of the Corporation; to indemnify any director, officer, or agent of the Corporation for expenses actually and necessarily incurred in furthering the activities and operations of the Corporation or in the defense of any litigation or action in which any said Director, officer, or agent is made a party; and to exercise all other powers necessary and reasonably convenient to effect any and all of the purposes for which the Corporation is now authorized or hereafter may be authorized by the laws of the United States and the State of Utah.



**ARTICLE X**  
**LIABILITY**

The Board of Directors, directors, employees and members of the Corporation shall not be liable, either jointly or severally, for any obligation, indebtedness or charge against the Corporation.

**ARTICLE XI**  
**INDEMNITY OF THE BOARD OF DIRECTORS**

The Corporation shall indemnify any and all of the Board of Directors, or former Board of Directors, or any person who may have served at its request as an Officer against expenses actually and necessarily incurred by them in connection with the defense of any action, suit or proceeding in which they or any of them are made parties, or a party, by reason of being or having been an Officer the Corporation, except in relation to matters as to which any Officer or former Officer or person shall be adjudged in such action, suit or proceeding to be liable for negligence or misconduct in the performance of duty. Such indemnification shall not be deemed exclusive of any or all other rights to which those indemnified may be entitled, under any Bylaws, agreement, vote of subscribers or otherwise.

**ARTICLE XII**  
**AMENDMENT**

Any amendment to these Articles of Incorporation shall require the assent of at least sixty percent (60%) of the Member voting interest as defined in the Declaration.

IN WITNESS WHEREOF, for the purpose of forming this corporation under the laws of the State of Utah, we, the undersigned, as incorporators of the Association, have executed these Articles of Incorporation this \_\_\_\_ day of November, 2022.

INCORPORATOR:

\_\_\_\_\_  
Signor  
45 E Center Street. #103  
  
North Salt Lake, UT 84054

**DECLARATION  
OF  
COVENANTS, CONDITIONS AND RESTRICTIONS AND  
RESERVATION OF EASEMENTS FOR  
HARRISVILLE PARK PLANNED UNIT DEVELOPMENT**

This DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS AND RESERVATION FOR the Harrisville Park Planned Unit Development. ("Declaration") is promulgated by the undersigned Declarant ("Declarant") and becomes effective when recorded with the Weber County Recorder's Office.

**RECITALS**

- A. The Harrisville Planned Unit Development is a planned unit development located in Harrisville, Weber County, Utah;
- B. The Declarant intends to sell to various purchasers the fee title to the individual Lots contained in the Project, subject to the following covenants, conditions, restrictions, easements and limitations herein set forth which are hereby declared to be for the benefit of the whole tract and all of the Project described herein and the owners thereof, their successors and assigns;
- C. All Owners, guests, invitees, agents, and residents shall abide by the provisions of this Declaration;
- D. These covenants, conditions, restrictions, easements, and limitations shall run with the land described in Exhibit "A" and shall be binding on and burden all parties having or acquiring any right, title, or interest to the land or any part thereof and shall create servient tenements on the land. The covenants, conditions, restrictions, easements, and limitations shall also benefit all parties having or acquiring any right, title, or interest to the land and shall create dominant tenements on the land;
- E. The Association shall be incorporated as a Utah nonprofit corporation, and shall be entitled to the rights, obligations, and benefits of the Revised Nonprofit Corporation Act (Utah Code Ann. 16-6a-101, *et. seq.*) as amended from time to time.
- F. The Association shall be subject to the Utah Community Association Act (Utah Code 57-8a-101, *et. seq.*) and shall be entitled to the rights, obligations, and benefits if this act as may be amended from time to time.

NOW THEREFORE, for the benefit of the Project and the Owners thereof, the following covenants, conditions, restrictions and easements shall apply to and be binding on the Project:

## I. DEFINITIONS

1.1. **Act** shall mean and refer to the Utah Community Association Act, codified beginning at Section 57-8a-101, Utah Code Annotated, as the same may be amended from time to time.

1.2. **Annexable Property** shall mean all real property described in Exhibit "B" of this Declaration, as amended.

1.3. **Declaration** shall mean and refer to this Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Stonebrook Towns Planned Unit Development.

1.4. **Assessments** shall mean any charge imposed or levied by the Association against Owners including but not limited to annual assessments corresponding with the Common Expenses as well as special assessments, individual assessments, late fees, and fines, all as provided in this Declaration.

1.5. **Architectural Review Committee** or **AR Committee** shall mean and refer to the Board or, if so appointed by the Board, a committee having architectural control powers as further described in Article X.

1.6. **Association** shall mean and refer to the Stonebrook Towns PUD HOA, INC., a Utah non-profit corporation.

1.7. **Board** or **Board of Directors** shall mean and refer to the Board of Directors of the Association as duly elected in accordance with the terms and conditions of the Articles of Incorporation and Bylaws of the Association. The Board is the governing body of the Association.

1.8. **Bylaws** shall mean and refer to the Bylaws of the Association as the same may be amended from time to time.

1.9. **Committee** or **Architectural Review Committee** shall mean and refer to the Board or, if so appointed by the Board, a committee having architectural control powers as further described in Article X.

1.10. **Common Areas** shall mean and refer to the entire Property that is not included within the Lots, which is owned by the Association for the common use and enjoyment of the Owners. Common Areas are described on the Plat, including but not limited to, fences, landscaping, sidewalks, parking areas, and driveways, together with all improvements thereon and all easements appurtenant thereto including but not limited to private utility lines, landscape easements and personal property owned by the Association when the context so requires, all of which are not included within the dimensions of any Living Unit or the exteriors of the Living Unit.

1.11. **Common Expenses** shall mean (a) all sums lawfully assessed against Owners; (b) expenses of administration, maintenance, management, operation, repair and replacement of the Common Areas which are maintained by the Association; (c) expenses allocated by the Association among the Owners; (d) expenses agreed upon as common expenses by the Association or its Board of Directors; (e) expenses declared common expenses by the Declaration; and (f) other miscellaneous charges incurred by the Association or the Board pursuant to the Act, this Declaration, the Bylaws, or the Rules.

1.12. **Development** or **Project** shall at any point in time mean, refer to, and consist of the Subdivision then in existence.

1.13. **Director** shall mean and refer to an individual member of the Board of Directors.

1.14. **Governing Documents** or **Project Documents** shall mean and refer to the Declaration, Articles of Incorporation, Bylaws, plat maps, and any rules, regulations, policies, resolutions adopted by the Board.

1.15. **Limited Common Areas** shall mean and refer to those Common Areas designated on the Plat as reserved for the use and benefit of a designated Lot to the exclusion of other Lot Owners. Limited Common Areas include the designated parking spaces, front porches, covered or un-covered, and entries to units, and the exterior of fences separating Lots from the Common Area.

1.16. **Living Unit** shall mean and refer to a structure which is designed and intended for use and occupancy of a single residence, or less than all of the residences, together with all improvements located on or with respect to the Lot concerned which are used in connection with such residence.

1.17. **Lot** shall mean and refer to each of the individual lots within the Stonebrook Towns PUD project, as shown on the Plat, with the exception of the Common Areas.

1.18. **Manager** shall mean a person, persons, or entity, if any, selected by the Board to manage the affairs of the Association and Property.

1.19. **Member** shall mean and refer to a Lot Owner.

1.20. **Mortgage** shall mean any and refer to a mortgage, deed of trust, or trust deed or the act of encumbering any Lot or any property by a mortgage, trust deed, or deed of trust.

1.21. **Mortgagee** shall mean and refer to any person or entity named as a mortgagee of a mortgage or beneficiary under or holder of a deed of trust.

1.22. **Occupant** shall mean and refer to any Person, other than an Owner, living, dwelling, or staying in a Living Unit. This includes, but is not limited to, all lessees, tenants, and the family members, agents, and representatives living, dwelling, or staying in a Living Unit.

1.23. **Owner** or **Lot Owner** shall mean and refer to the record owner, whether one or more Persons, of a fee simple title to any Lot which is a part of the Property, including contract sellers, but excluding those having an interest merely as security for the performance of an obligation.

1.24. **Person** shall mean and refer to a natural individual, corporation, business entity, estate, partnership, trustee, association, joint venture, government, governmental subdivision, or agency or other legal entity capable of holding title to real property.

1.25. **Plat** shall mean and refer to the official subdivision plats of Stonebrook Towns PUD, filed and recorded in the official records of the Weber County Recorder's Office.

1.26. **Property** shall mean and refer to all of the real property, which is covered by a Plat.

1.27. **Restrictions** shall mean the covenants, conditions, assessments, easements, liens, and restrictions set forth in this Declaration.

1.28. **Rules** shall mean and refer to the rules, resolutions, regulations, policies, etc. adopted by the Board.

1.29. **Subdivision** shall mean and refer to the entire residential development and/or planned residential unit development, which is created and covered by a Plat.

## **II. PROPERTY DESCRIPTION**

2.1. **Submission.** The Property, which is and shall be held, transferred, sold, conveyed, and occupied subject to the provisions of this Declaration, consists of the real property situated in Weber County, State of Utah described as follows:

SEE THE LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT "A" AND INCORPORATED HEREIN BY REFERENCE.

2.2. **Name.** The Project, as submitted to the provisions of this Declaration, shall be known as Stonebrook Towns Planned Unit Development.

2.3 **Description of Lots.** The Projects consists of 28 Lots, each of which includes a Living Unit and other improvements authorized on the Plat. All improvements have been and shall continue to be constructed in a style and of materials architecturally compatible with the other improvements on the Project. The Lots, their locations, and approximate dimensions are indicated on the respective Plats.

2.4 **Common Areas.** The Common Areas of the Project shall be and are the fences, landscaping, sidewalks, parking areas, and driveways, not included within the dimensions of any Unit, and any and all other Common Areas designated as such on the Plat, and any other future

interests in Common Areas pursuant to the terms of this Declaration. A Lot Owner shall be entitled to the use and enjoyment of the Common Areas within the Project.

### **III. MEMBERSHIP AND VOTING RIGHTS**

3.1. **Membership.** Every Owner shall be a Member of the Association. Membership in the Association shall be mandatory, shall be appurtenant to the Lot in which the Owner has the necessary interest, and shall not be separated from the Lot to which it appertains. Membership in the Association shall not be transferred, pledged, or alienated in any way, except upon the transfer of ownership of the Unit to which it is appurtenant, and then only to the new Owner. Any attempt to make a prohibited transfer is void. In the event the Owner of any Unit should fail or refuse to transfer the membership registered in his name to the purchaser of their Unit, the Association shall have the right to record the transfer upon its books and thereupon the old membership outstanding in the name of the seller shall be null and void.

3.2. **Voting Rights.** The Association shall initially have the following two classes of votes:

(a) **Class A.** Class A Members shall be all Owners other than the Declarant until the Class B membership ceases. Class A Members shall be entitled to one vote for each Lot in which the interest required for membership in the Association is held. In no event, however, shall more than one Class A vote exist with respect to any Lot.

(b) **Class B.** The Class B Member shall be the Declarant. The Class B Member shall be entitled to 2 votes for every Lot owned by Declarant plus 2 votes for every class A vote. The Class B Membership shall automatically cease and be converted to a Class A membership upon the sale of the last lot.

After turnover, Owners shall be entitled to one (1) vote for each Lot in which the interest required for membership in the Association is held. Voting is limited to one (1) vote per Lot. There is a total of Nineteen (19) votes in the Association.

3.3. **Multiple Ownership Interests.** In the event there is more than one Owner of a particular Lot, the vote relating to such Lot shall be exercised as such Owners may determine among themselves. A vote cast by any of such Owners, whether in person or by proxy or by written ballot, shall be conclusively presumed to be the vote attributable to the Lot concerned unless an objection is immediately made by another Owner of the same Lot. In the event such an objection is made or if there are conflict votes from the same Lot, the vote involved shall not be counted for any purpose other than to determine whether a quorum exists.

3.4. **Record of Ownership / Reinvestment Fee.** Every Owner shall promptly cause to be duly filed of record the conveyance document (or in the case of contract buyer, a copy of the sales contract) to him of his Lot. Each Owner shall file a copy of such conveyance documents (or contract) with the secretary of the Association, with a reinvestment fee of .5% of the purchase price of the Lot, who shall maintain a record of ownership of the Lots. Any Owner who mortgages his Lot or any interest therein by a mortgagee which has priority over the lien of any

assessment provided herein shall notify the secretary of the Association of the name and address of the Mortgagee and also of the release of such Mortgage; and the secretary of the Association shall maintain all such information in the records of ownership. Any cost incurred by the Association in obtaining the information about an Owner as specified herein which is not furnished by such Owner shall nevertheless be at the expense of such Owner and shall be reimbursed to the Association as an "Individual Assessment" in accordance with the provisions of Section 5.6.

3.5 **Proxies.** An Owner may give his proxy, either specific or general, to another Owner, a third person, or to a contract purchaser or his Lot to vote on all matters coming before the Association for vote provided the same is in writing, authenticated by witnesses or a notary public, and is presented to those Association officers conducting such vote.

#### **IV. PROPERTY RIGHTS IN COMMON AREAS**

4.1. **Easement of Enjoyment.** Each Member shall have a right and easement of use and enjoyment in and to the Common Areas. Such right and easement shall be appurtenant to and shall pass with title to each Lot and in no event shall be separated therefrom. Any Member may delegate the right and easement of use and enjoyment described herein to any family member, tenant, lessee, or contract purchaser who resides on such Member's Lot. This right of easement shall only extend to the Limited Common Area appurtenant to the Unit and not to other Limited Common Areas. Members, and Maintenance Crews shall have the right to cross Limited Common Area to maintain portions of any unit and any unit's private fenced in areas.

4.2. **Title to Common Areas.** The Declarant has conveyed title to the Association on various Common Areas.

4.3. **Limitation on Easement.** A Member's right and easement for the use and enjoyment of the Common Areas shall be subject to the following:

(a) The right of the Association to impose reasonable limitations on the number of guests per Member who at any given time are permitted to use the Common Areas;

(b) The right of the Association to charge reasonable admission and other fees for the use of the recreational facilities situated upon the Common Areas.

(c) The right of Weber County and any other governmental or quasi-governmental body having jurisdiction over the Property to access and rights of ingress and egress over and across any street, parking area, walkway, or open area contained within the Property for purposes of providing police and fire protection, transporting school children, and providing any other governmental or municipal service;

(d) The right of the Association to suspend voting rights and right to use the Common Areas by an Owner for any period during which any Assessments against his Lot remain unpaid, and for a period not to exceed sixty (60) days for any infraction of the Rule;

(e) The right of the Association to dedicate or transfer all or any part of the Common Areas, and any sewer, water and storm drain lines to any public agency or authority for such purposes and subject to such conditions as may be agreed to by the Association. Any such dedication or transfer must, however, be assented to by two-thirds (2/3) of the Lot Owners.

4.4. **Delegation of Use.** Any Owner may delegate his right of use and enjoyment to the Common Areas to family members, tenants, or contract purchasers who reside on the Property. The rights and privileges of such delegee or assignee shall be subject to suspension in the same manner and to the same degree as those of an Owner, as described in Article IV, Section 4.3 above.

4.5. **Compliance with Covenants and Restrictions and Rules and Regulations.** Each Owner and Owners' guests shall comply with the covenants and restrictions imposed by this Declaration on the use and enjoyment of the Common Area. Further, each Owner and Owners' guests shall fully and faithfully comply with the rules, regulations and restrictions applicable to use of the Common Area, as such rules, regulations and restrictions are from time to time adopted by the Association for the safety, care, maintenance, good order and cleanliness of the Common Area.

## V. **ASSESSMENTS**

5.1. **Covenant to Pay Assessments.** Each Owner of any Lot by the acceptance of a deed therefore, whether or not it be so expressed in the deed, hereby covenant and agree with each other and with the Association to pay to the Association all Assessments, including by illustration but not limitation all Annual, Special, or Individual Assessments described below, and other fees, charges, levies, and fines as provided in the Governing Documents.

5.2. **Purpose of Assessments.** Assessments levied by the Association shall be used exclusively for the purpose of promoting the health, safety, and welfare of residents of the Property, including but not limited to the appearance and aesthetics of the Project. The use made by the Association of funds obtained from Assessments may include, but is not limited to, payment of the cost of taxes and insurance on the Common Areas; maintenance, repair and improvement of the Common Areas; establishing and funding a reserve to cover major repair or replacement of improvements within the Common Areas; and any expenses necessary or desirable to enable the Association to perform or fulfill its obligations, functions or purposes under this Declaration, the Bylaws, or its Articles of Incorporation.

5.3. **Declarant's Covenant for Assessments.** Anything to the contrary notwithstanding, the Declarant shall not be obligated to pay Assessments on any Lots owned by it until such time as: (1) the physical structures are substantially completed; (2) certificates of permanent occupancy are issued and the Living Units are sold; or (3) Declarant elects in writing to pay the Assessments, whichever first occurs.

5.4. **Basis for Assessments.** The total annual Assessments against all Lots shall be based upon advance estimates of cash requirements by the Board to provide for the payment of each Owner's share of the Common Expenses and all estimated expenses growing out of or



connected with the maintenance and operation of the Common Areas, among other things, is expenses of management; grounds maintenance; taxes and special assessments levied by governmental authorities; premiums for all insurance which the Association is required or permitted to maintain; common lighting and heating; water charges; trash collection; sewer service charges; repairs and maintenance; legal and accounting fees; any deficit remaining from a previous period; the creation of a reasonable contingency reserve, surplus and/or sinking fund; and any other expenses and liabilities which may be incurred by the Board for the benefit of the Owners under or by reason of this Declaration.

5.5. **Annual Assessments.** Annual Assessments shall be made on a calendar year basis. The Board shall give written notice of each Annual Assessment not less than thirty (30) days nor more than sixty (60) days prior to the beginning of the next calendar year. Each Annual Assessment shall be due and payable in monthly installments on the first day of each and every month and no separate notices of such monthly installment shall be required. At least fifteen (15) days prior to the effective date of any change in the amount of the Annual Assessment, the Association shall give each Owner written notice of the amount.

5.6. **Special Assessments.** In addition to the Annual Assessments, the Board may levy in any calendar year a Special Assessment up to One-thousand dollars (\$1,000), payable over such a period as the Board may determine for the purpose of defraying, in whole or in part any expense or expenses not reasonably capable of being fully paid with funds generated by Annual Assessments; the cost of any construction, reconstruction, or unexpected repair or replacement of the Property or Common Areas; or for any other expense incurred or to be incurred as provided in this Declaration. Additional Special Assessments over One-thousand dollars (\$1,000) in a calendar year may be levied if assented to by a majority of the Members present in person or by proxy at a meeting duly called for such purpose. Notice in writing of the amount of any Special Assessments and the time for their payment shall be given as soon as is reasonably possible to the Owners. Payment shall be due on the dates and in the manner provided in the notice.

5.7. **Individual Assessments.** In addition to Annual and Special Assessments authorized pursuant to Sections 5.5 and 5.6 above, the Board may levy at any time Individual Assessments: (a) on each Lot specifically benefited by any improvements to adjacent roads, sidewalks, planting areas or other portions of the Common Areas made on the written request of the Owner of the Lot to be charged; (b) on each Lot the Owner or Occupant of which shall cause any damage to the Common Areas necessitating repairs; and (c) on each Lot as to which the Association shall incur any expense for maintenance or repair work performed or enforcement action taken pursuant to the provisions of the Governing Documents to bring a Lot and/or its Living Unit into compliance. The aggregate amount of any such Individual Assessments shall be determined by the cost of such improvements, repairs, maintenance, or enforcement action, including all overhead and administrative costs and attorney's fees, and shall be allocated among the affected Lots according to the special benefit or cause of damage or maintenance or repair work or enforcement action, as the case may be. Individual Assessments may be levied in advance of the performance of the work. If a special benefit arises from any improvement which is part of the general maintenance obligations of the Association, it shall not give rise to an Individual Assessment against the Lot(s) benefited, unless such work was necessitated by the Lot Owner's or Occupants' negligence.

5.8. **Uniform Rate of Assessment.** Except for Individual Assessments provided in Section 5.7 above, Annual and Special Assessments shall be fixed at a uniform rate for all Lots. Notwithstanding the above language.

5.9. **Personal Obligation and Lien.** All Assessments, together with any interest, late fees, collection costs, and attorneys' fees if collection efforts become necessary shall be, constitute, and remain: (a) a charge and continuing lien upon the Lot with respect to which such Assessment is made; and (b) the personal obligation of the person who is the Owner of such Lot at the time the Assessment falls due. No Owner may exempt himself or his Lot from liability for payment of Assessments by waiver of his rights concerning the Common Areas or by abandonment of his Lot. In a voluntary conveyance of a Lot, the grantee shall be jointly and severally liable with the grantor for all such unpaid Assessments, late payment fees, interest, and costs of collection, including reasonable attorneys' fees, which shall be a charge on the Lot at the time of the conveyance, without prejudice to the grantee's right to recover from the grantor the amounts paid by the grantee therefore. Owner is required to pay the Assessments regardless if all improvements have not yet been installed.

5.10. **Certificate Regarding Payment.** Upon the request of any Owner, prospective purchaser, mortgagee, or encumbrancer of a Lot, the Association shall issue a certificate stating whether or not all Assessments respecting such Lot are current and, if not, the amount of the delinquency. Such certificate shall be conclusive in favor of all persons who in good faith rely thereon. The Association may charge the requesting Owner, prospective purchaser, mortgagee, or encumbrancer of a Lot a reasonable fee of up to twenty-five dollars (\$25) or an amount greater if so provided in the Act.

5.11. **Default in Payment of Assessment; Enforcement of Lien.** Assessments not paid within thirty (30) days of the due date thereof shall be deemed delinquent and subject to interest at the rate of eighteen percent (18%) per annum. In addition to the interest charge, a late fee may be imposed by the Board in an amount established through Rules. If an Assessment or other charge levied under this Declaration becomes delinquent, the Association may exercise any or all of the following remedies:

(a) The Association may suspend such Owners voting rights.

(b) The Association shall have a lien against each Lot for any Assessment levied against the Lot and any fines or other charges imposed under this Declaration or the Bylaws against the Owner of the Lot from the date on which the Assessment, fine, or charge is due. At any time any Assessment (of any type provided for by this Declaration or the Bylaws) or installment thereof is delinquent, the Association, by and through its Board or any Manager, may file a notice of lien in the deed records of Weber County, Utah against the Lot in respect to which the delinquency pertains. Once filed, such lien shall accumulate all future Assessments or installments, interest, late fees, penalties, fines, attorneys' fees, and other appropriate costs properly chargeable to an Owner by the Association, until such amounts are fully paid. Said lien may be foreclosed at any time as allowed by law. The lien of the Association shall be superior to all other liens and encumbrances except a lien or encumbrance recorded before the Original Declaration

was recorded; a first or second security interest on the Lot secured by a mortgage or trust deed that is recorded before the Association's notice of lien; or a lien for real estate taxes or other governmental assessments against the Lot. The Association through its duly authorized agents, may bid on the Lot at any foreclosure sale, and may acquire and hold, lease, mortgage, and convey the Lot.

(c) The Association may bring an action to recover a money judgment for unpaid Assessments, fines, and charges under this Declaration against the Lot Owner without foreclosing or waiving the lien described in paragraph (b) above. Recovery on any such action, however, shall operate to satisfy the lien, or the portion thereof, for which recovery is made.

(d) If the delinquent Owner is leasing his Lot or any portion thereof, the Board may, at its option, so long as such default shall continue, demand and receive from any tenant of the Owner the rent due or becoming due and the payment of such rent to the Board shall discharge such tenant for rent due, and shall discharge the Owner for such Assessments to the extent of the amount so paid.

(e) The Association may terminate utilities paid out of the Common Expense and the right to use the Common Areas.

(f) The Association shall have any other remedy available to it by law or in equity.

5.12. **Reserve Account.** The Association shall establish a reserve account to fund long-term maintenance of other areas required to be maintained by the Association; insurance; all other Common Expenses; and the administration, management, operation, and reserves of the Association. If the Board fails to adopt an annual budget, the last adopted budget shall continue in effect. The Board shall follow any statutory requirement to conduct a reserve analysis and use such reserve analysis in making budget decision for the funding of a Reserve Account.

5.13. **Reimbursement of Tax Collection by County Authorized.** It is recognized that under the Declaration the Association will own the Common Areas and that it will be obligated to pay property taxes to Weber County, to the extent taxes are required on such Common Areas. It is further recognized that each Owner of a Lot as a Member of the Association will be required to reimburse the Association for his pro rata share of such taxes paid. Notwithstanding anything to the contrary contained in the Declaration, Weber County shall be authorized to collect such pro rata share of taxes directly from each Owner by inclusion and said share with the tax levied on each Lot.

## **VI. DUTIES AND POWERS OF THE ASSOCIATION**

6.1. **General Powers and Obligations.** The Association shall have, exercise and perform all of the following powers, duties, and obligations:

(a) The powers, duties, and obligations granted to the Association by this Declaration, its Bylaws, and the Articles of Incorporation;

(b) The powers and obligations of a nonprofit corporation pursuant to the general nonprofit corporation laws of the State of Utah;

(c) The powers, duties, and obligations of a homeowners association pursuant to the Utah Community Association Act, or any successor thereto;

(d) The powers, duties, and obligations not reserved specifically to the Lot Owners; and

(e) Any additional or different powers, duties, and obligations necessary or desirable for the purpose of carrying out the functions of the Association pursuant to this Declaration or otherwise promoting the general benefit of the Owners within the Project.

The powers and obligations of the Association may from time to time be amended, repealed, enlarged, or restricted by changes in this Declaration made in accordance with the provisions herein, accompanied by any necessary changes in the Articles of Incorporation or Bylaws of the Association made in accordance with such instruments and with the nonprofit corporation laws of the State of Utah.

6.2. **Specific Powers and Duties.** The powers and duties of the Association shall include, without limitation, the following:

(a) **Maintenance and Services.** The Association shall provide maintenance and services for the Project as provided in Article VII and other provisions of this Declaration.

(b) **Insurance.** The Association shall obtain and maintain in force policies of insurance as provided in this Declaration or the Bylaws of the Association. The Association shall have no obligation to obtain or maintain any insurance covering the personal and real property of any Owner(s), and each Owner shall be responsible for obtaining and maintaining such personal and real property insurance.

(c) **Rulemaking.** The Association, through its Board of Directors, shall make, establish, promulgate, amend, and repeal Rules governing the conduct of persons and the operation and use of the Property as it may deem necessary or appropriate in order to assure a clean, aesthetically pleasing, peaceful, and orderly use and enjoyment of the Property.

(d) **Assessments.** The Association shall adopt budgets and impose and collect Assessments as provided in Article V of this Declaration.

(e) **Enforcement.** The Association shall perform such acts, whether or not expressly authorized by this Declaration, as may be reasonably necessary to enforce the provisions of the Governing Documents of the Association.

(f) **Title to Common Areas.** The Association shall hold title to all Common Areas conveyed to it by its developer and pay all real property taxes and assessments levied upon any portion of the Common Areas, unless paid by the Owners, provided that the Association shall have the right to contest or compromise any such taxes or assessments.

(g) **Employment of Agents, Advisers, and Contractors.** The Association, through its Board, may employ the services of any person or corporation as managers, hire employees to manage, conduct, and perform the business, obligations, and duties of the Association, employ professional counsel and obtain advice from such persons or firms or corporations such as, but not limited to, community association managers, landscape architects, accountants, recreational experts, architects, planners, lawyers, reserve study specialists, or what is convenient for the management, maintenance, and operation of the Property. Any agreement with a Manager shall not exceed a term of two (2) years, renewable by agreement of the parties for a successive two (2) year term, and shall be terminable by the Association upon no more than sixty (60) advanced notice.

(h) **Litigation.** The Board may instigate litigation to enforce the provisions of this Declaration or any other Common Law or statutory right which the Association is granted. The Association shall not commence any litigation without prior approval of the majority of the Members, if the litigation shall exceed the cost of five thousand dollars (\$5,000.00) either in attorney fee expenses or in costs (including any expert reports).

6.3. **Liability.** A member of the Board or an officer of the Association shall not be liable to the Association or any Member thereof for any damage, loss, or prejudice suffered or claimed on account of any action or failure to act in the performance of his or her duties, except for intentional or willful bad acts or acts of recklessness. In the event any Board member or any officer of the Association is made a party to any proceeding because the individual is or was a director or officer of the Association, the Association shall indemnify such individual against liability and expenses incurred to the maximum extent permitted by law, except where the Board member or officer is found by a court of law to have acted recklessly, willfully, or intentionally in carrying out his/her duties.

6.4. **Board of Directors.** Except where a matter or vote is specifically reserved to the Owners, the Board of Directors shall act in all instances on behalf of the Association.

6.5. **Proceedings.** The Association, acting through the Board, shall have the power and the duty to reasonably defend the Association (and, in connection therewith, to raise counterclaims) in any pending or potential lawsuit, arbitration, mediation or governmental proceeding (collectively hereinafter referred to as a "Proceeding"). The Association, acting through the Board, shall have the power, but not the duty, to reasonably institute, prosecute, maintain and/or intervene in a Proceeding, in its own name, but only on matters affecting or pertaining to this Declaration as to which the Association is a proper party in interest, and any exercise of such power shall be subject to full compliance with the following provisions:

(a) Any Proceeding commenced by the Association: (1) to enforce the payment of an assessment or an assessment lien or other lien against an Owner as provided for in this Declaration, or (2) to otherwise enforce compliance with the Declaration, Bylaws, or Rules and Regulations of the Association, or to obtain other relief from, any Owner who has violated any provision thereof, or (3) against a supplier, vendor, contractor or provider of services, pursuant to a contract or purchase order with the Association, and in the ordinary course of

business, or (4) for money damages wherein the total amount in controversy for all matters arising in connection with the action is not likely to exceed Ten Thousand Dollars (\$10,000.00) in the aggregate, shall be referred to herein as an "Operational Proceeding". The Board from time to time may cause an Operational Proceeding to be reasonably commenced and prosecuted, without the need for further authorization.

(b) Any and all pending or potential Proceedings other than Operational Proceedings shall be referred to herein as "Non-Operational Controversy" or "Non-Operational Controversies". To protect the Association and the Owners from being subjected to potentially costly or prolonged Non-Operational Controversies without full disclosure, analysis and consent; to protect the Board and individual members of the Board or its appointed officers and agents from any charges of negligence, breach of fiduciary duty, conflict of interest or acting in excess of their authority or in a manner not in the best interests of the Association and the Owners; and to ensure voluntary and well-informed consent and clear and express authorization by the Owners, strict compliance with all of the following provisions of this Section shall be mandatory with regard to any and all Non-Operational Controversies commenced, instituted or maintained by the Board:

1. The Board shall first endeavor to resolve any Non-Operational Controversy by good faith negotiations with the adverse party or parties. The good faith negotiations shall include a written notice that shall include an explanation of the nature of the claim, a specific breakdown and calculation of any alleged damages, a specific description of the claim along with any supporting evidence upon which the claim is based, photographs of any alleged condition, if applicable, and one hundred eighty (180) days to cure or resolve the claim. In the event that such good faith negotiations fail to reasonably resolve the Non-Operational Controversy, the Board shall endeavor in good faith to resolve such Non-Operational Controversy by mediation, provided that the Board shall not incur liability for or spend more than Five Thousand Dollars (\$5,000.00) in connection therewith (provided that, if more than said sum is reasonably required in connection with such mediation, then the Board shall be required first to reasonably seek approval of two-thirds (2/3) of the voting power of the Members for such additional amount for mediation before proceeding to either arbitration or litigation). In the event that the adverse party or parties refuse mediation, or if such good faith mediation still fails to reasonably resolve the Non-Operational Controversy, the Board shall not be authorized to commence, institute or maintain any arbitration or litigation of such Non-Operational Controversy until the Board has fully complied with the following procedures:

a. The Board shall first investigate the legal merit, feasibility and expense of prosecuting the Non-Operational Controversy, by obtaining the written opinion of a licensed Utah attorney, expressly stating that such attorney has reviewed the underlying facts and data in sufficient, verifiable detail to render the opinion, and expressly opining that the Association has a substantial likelihood of prevailing on the merits with regard to the Non-Operational Controversy, without substantial likelihood of incurring any material liability with respect to any counterclaim which may be asserted against the Association. The Board shall be authorized to spend up to an aggregate of Five Thousand Dollars

(\$5,000.00) to obtain such legal opinion, including all amounts paid to said attorney therefor, and all amounts paid to any consultants, contractors and/or experts preparing or processing reports and/or information in connection therewith. The Board may increase said \$5,000.00 limit, with the express consent of two-thirds (2/3) of all of the Members of the Association, at a special meeting called for such purpose.

b. Said attorney opinion letter shall also contain the attorney's best good faith estimate of the aggregate maximum "not-to-exceed" amount of legal fees and costs, including, without limitation, court costs, costs of investigation and all further reports or studies, costs of court reporters and transcripts, and costs of expert witnesses and forensic specialists (all collectively, "Quoted Litigation Costs") which are reasonably expected to be incurred for prosecution to completion (including appeal) of the Non-Operational Controversy. Said opinion letter shall also include a draft of any proposed fee agreement with such attorney. If the attorney's proposed fee arrangement is contingent, the Board shall nevertheless obtain the Quoted Litigation Costs with respect to all costs other than legal fees, and shall also obtain a written draft of the attorney's proposed contingent fee agreement. (Such written legal opinion, including the Quoted Litigation Costs, and also including any proposed fee agreement, contingent or non-contingent, are collectively referred to herein as the "Attorney Letter").

c. Upon receipt and review of the Attorney Letter, if two-thirds (2/3) or more of the Board affirmatively vote to proceed with the institution or prosecution of, and/or intervention in, the Non-Operational Controversy, the Board thereupon shall duly notice and call a special meeting of the Members. The written notice to each Member of the Association shall include a copy of the Attorney Letter, including the Quoted Litigation Costs and any proposed fee agreement, contingent or non-contingent, together with a written report ("Special Assessment Report") prepared by the Board: (1) itemizing the amount necessary to be assessed to each Member ("Special Litigation Assessment"), on a monthly basis, to fund the Quoted Litigation Costs, and (2) Specifying the probable duration and aggregate amount of such Special Litigation Assessment. At said special meeting, following review of the Attorney Letter, Quoted Litigation Costs and the Special Assessment Report, and full and frank discussion thereof, including balancing the desirability of instituting, prosecuting and/or intervening in the Non-Operational Controversy against the desirability of accepting any settlement proposals from the adversary party or parties, the Board shall call for a vote of the Members, whereupon: (a) if less than two-thirds (2/3) of the total voting power of the Association votes in favor of pursuing such Non-Operational Controversy and levying the Special Litigation Assessment, then the Non-Operational Controversy shall not be pursued further, but (b) if two-thirds (2/3) of the total voting power of the Association affirmatively vote in favor of pursuing such Non-Operational Controversy, and in favor of levying a Special Litigation Assessment on the Members in the amounts and for the duration set forth in the

Special Assessment Report, then the Board shall be authorized to proceed to institute, prosecute and/or intervene in the Non-Operational Controversy. In such event, the Board shall engage the attorney who gave the opinion and quote set forth in the Attorney Letter, which engagement shall be expressly subject to the Attorney Letter. The terms of such engagement shall require that said attorney shall be responsible for all attorneys' fees and costs and expenses whatsoever in excess of one hundred twenty percent (120%) of the Quoted Litigation Costs, and that said attorney shall provide, and the Board shall distribute to the Members, not less frequently than quarterly, a written update of the progress and current status of, and the attorney's considered prognosis for, the Non-Operational Controversy, including any offers of settlement and/or settlement prospects, together with an itemized summary of attorneys' fees and costs incurred to date in connection therewith.

d. In the event of any bona fide settlement offer from the adverse party or parties in the Non-Operational Controversy, if the Association's attorney advises the Board that acceptance of the settlement offer would be reasonable under the circumstances, or would be in the best interests of the Association, or that said attorney no longer believes that the Association is assured of a substantial likelihood of prevailing on the merits without prospect of material liability on any counterclaim, then the Board shall have the authority to accept such settlement offer. In all other cases, the Board shall submit any settlement offer to the Owners, who shall have the right to accept any such settlement offer upon a majority vote of all of the Members of the Association.

(c) In no event shall any Association working capital fund be used as the source of funds to institute, prosecute, maintain and/or intervene in any Proceeding (including, but not limited to, any Non-Operational Controversy).

(d) Any post-turnover litigation involving the Association (as Plaintiff) and the Declarant shall strictly comply with each of the provisions of this Section 6.5. The parties hereby covenant, stipulate, and agree that in the event the Association fails to satisfy the prerequisites set forth herein, the Association will indemnify, defend, hold harmless, and exculpate Declarant to the fullest extent permissible by law, and Declarant shall be entitled to recover any and all attorneys fees and costs expended as a result of enforcing this provision 6.5., which fees and costs may include, without limitation, pre-litigation attorneys fees, costs incurred in connection with investigation of potential claims, including expert and consultant fees, testing fees, contractor fees, and insurance deductibles. The parties further covenant, stipulate, and agree that failure to comply with section 6.5 herein will result in damages to Declarant including, without limitation, reputational harm, and may result in damages to Declarant including lost revenues, and loss of business and sales opportunities.

(e) Any provision in this Declaration notwithstanding: (1) other than as set forth in this Section 6.5, the Association shall have no power whatsoever to institute, prosecute,



maintain or intervene in any Proceeding, (2) any institution, prosecution or maintenance of, or intervention in, a Proceeding by the Board without first strictly complying with, and thereafter continuing to comply with, each of the provisions of this Section 6.5, shall be unauthorized and *ultra vires* (i.e., an unauthorized and unlawful act, beyond the scope of authority of the corporation or of the person(s) undertaking such act) as to the Association, and shall subject any member of the Board who voted or acted in any manner to violate or avoid the provisions and/or requirements of this Section 6.5 to personal liability to the Association for all costs and liabilities incurred by reason of the unauthorized institution, prosecution or maintenance of, or intervention in, the Proceeding; and (3) this Section 6.5 may not be amended or deleted at any time without the express prior written approval of both: (a) Members representing not less than sixty-seven percent (67%) of the total voting power of the Association, and (b) not less than seventy-five percent (75%) of the total voting power of the Board; and any purported amendment or deletion of this Section 6.5 or any portion hereof, without both of such express prior written approvals shall be void.

## VII. MAINTENANCE

7.1. **Maintenance.** The Association will provide maintenance upon the exterior of each Living Unit, Lot, fencing, and the Common Area as follows: paint, repair, replace, and care for roofs, gutters, downspouts, exterior building surfaces, trees, shrubs, grass, walks, fencing, streets and other exterior improvements except glass surfaces. The Association will provide snow removal from the streets, sidewalks, and Driveways within the Property.

7.2. **Services.** The Association shall provide or contract for such services as the Board of Directors may reasonably deem to be of benefit to the Property.

7.3. **Owner Responsibility.** Each Owner shall keep the interior of his Living Unit, including without limitation, interior walls, ceilings, floors, and permanent fixtures and appurtenances thereto, together with all doors and windows separating his Living Unit from the exterior of the building and any decks and all Limited Common Areas appurtenant to his Living Unit in a clean and sanitary condition and in a state of good repair. Each Owner shall be responsible for keeping the patios in front of each Owners Unit in a clean state of repair. The HOA will maintain all vegetation installed by the Declarant. Any modifications to vegetation must be approved by the HOA.

7.4. **Owner Maintenance Neglect.** The Association shall have the power and authority at any time and from time to time and without liability to any Owner for trespass, damage, or otherwise, to enter upon any Lot for the purpose of maintaining and repairing such Lot or any improvement thereon (including a Living Unit) if for any reason the Owner fails to maintain and repair such Lot or improvement, or for the purpose of removing any improvement constructed, reconstructed, refinished, altered or maintained upon such Lot in violation of this Declaration or any Rules of the Association. The Association shall also have the power and authority from time to time in its own name, on its own behalf, or in the name and behalf of any Owner or Owners who consent thereto, to commence and maintain actions and suits to restrain and enjoy any breach or threatened breach of this Declaration or any Rules promulgated by the Board, or to enforce by mandatory injunction or otherwise all of the provisions of this Declaration and such Rules.

7.5. **Maintenance Caused by Owner Negligence.** In the event that the need for maintenance or repair of Common Areas or the exterior of a Living Unit as specified herein is caused through the willful or negligent acts of an Owner, or through the willful or negligent acts of the family, guests, tenants, or invitees of an Owner, the Board may cause such repairs to be made by the Association and the cost of such maintenance or repair work shall be added to and become an Individual Assessment (as set forth in Section 5.5) to which such Lot is subject.

## VIII. **INSURANCE**

8.1. **Insurance.** The Board of Directors shall obtain insurance as required in this Declaration, the Act, or other applicable laws. The Association may obtain insurance that provides more or additional coverage than the insurance required in this Declaration. Different policies may be obtained from different insurance carriers and standalone policies may be purchased instead of or in addition to embedded, included coverage, or endorsements to other policies. Insurance premiums shall be a Common Expense.

8.2. **Property Insurance.**

(a) **Hazard Insurance.** The Association shall maintain a blanket policy of property insurance covering the entire Project, including the Common Area and all buildings including all Living Units, fixtures, and building services equipment as provided in the Act. The Association may maintain broader coverage if afforded by the insurance contract.

1. The blanket policy shall exclude land and other items not normally and reasonably covered by such policies. The blanket policy shall be an "all in" or "all inclusive" insurance as those terms are used in the insurance industry and shall include insurance for any fixture, improvement, or betterment installed in or to the Living Unit or any Limited Common Areas or otherwise permanently part of or affixed to Common Areas, Living Units, or Limited Common Areas, including but not limited to floor coverings, cabinets, light fixtures, electrical fixtures, heating and plumbing fixtures, paint, wall coverings, windows.

2. At a minimum, the blanket policy shall afford protection against loss or damage by: (1) fire, windstorm, hail, riot, aircraft, vehicles, vandalism, smoke, and theft; and (2) all perils normally covered by "special form" property coverage.

3. The blanket policy shall be in an amount not less than one hundred percent (100%) of current replacement cost of all property covered by such policy (including the Living Units) at the time the insurance is purchased and at each renewal date. The actual replacement cost of the property shall be determined by using methods generally accepted in the insurance industry.

4. The blanket policy shall include either of the following endorsements to assure full insurable value replacement cost coverage: (1) a Guaranteed Replacement Cost Endorsement under which the insurer agrees to replace the insurable property regardless of the cost; and (2) a Replacement Cost Endorsement under which the

insurer agrees to pay up to one hundred percent (100%) of the Property's insurable replacement cost but not more. If the policy includes a coinsurance clause, it must include an Agreed Amount Endorsement which must waive or eliminate the requirement for coinsurance.

5. Each property policy that the Association is required to maintain shall also contain or provide for the following: (i) "Inflation Guard Endorsement," if available, (ii) "Building Ordinance or Law Endorsement," (the endorsement must provide for contingent liability from the operation of building laws, demolition costs, and increased costs of reconstruction), and (iii) "Equipment Breakdown," if the project has central heating or cooling or other equipment or other applicable fixtures, equipment, or installation, which shall provide that the insurer's minimum liability per accident at least equals the lesser of two million dollars (\$2,000,000) or the insurable value of the building containing the equipment.

(b) Owner Responsibility for Payment of Deductible. If a loss occurs that is covered by a property insurance policy in the name of the Association and another property insurance policy in the name of an Owner:

1. the Association's policy provides primary insurance coverage;

2. Notwithstanding Subsection 8.2.(a)(1) above, and subject to Subsection 8.2.(b)(3) below:

a) the Owner is responsible for the Association's policy deductible; and

b) the Owner's policy, if any, applies to that portion of the loss attributable to the Association's policy deductible.

3. An Owner that has suffered damage to any combination of a Unit or a Limited Common Area appurtenant to a Living Unit ("Unit Damage") as part of a loss, resulting from a single event or occurrence, that is covered by the Association's property insurance policy ("a Covered Loss") is responsible for an amount calculated by applying the percentage of total damage resulting in a Covered Loss that is attributable to Unit Damage ("Unit Damage Percentage") for that Living Unit to the amount of the deductible under the Association's property insurance policy; and

4. If an Owner does not pay the amount required under Subsection b) above within 30 days after substantial completion of the repairs to, as applicable, the Unit or the Limited Common Area appurtenant to the Living Unit, the Association may levy an assessment against the Owner for that amount.

(c) Association's Obligation to Segregate Property Insurance Deductible. The Association shall keep in a segregated bank account an amount equal to the Association's property insurance policy deductible or \$10,000, whichever is less. This requirement shall not apply to any earthquake or flood insurance deductible.

(d) Association's Right to Not Tender Claims that are Under the Deductible. If, in the exercise of its business judgment, the Board of Directors determines that a claim is likely not to exceed the Association's property insurance policy deductible: (a) the Owner's policy is considered the policy for primary coverage to the amount of the Association's policy deductible; (b) an Owner who does not have a policy to cover the Association's property insurance policy deductible is responsible for the loss to the amount of the Association's policy deductible; and (c) the Association need not tender the claim to the Association's insurer.

(e) Notice Requirement for Deductible. The Association shall provide notice to each Owner of the Owner's obligation under Subsection (b) above for the Association's policy deductible and of any change in the amount of the deductible. If the Association fails to provide notice of the initial deductible, it shall be responsible for the entire deductible in case of any loss. If the Association fails to provide notice of any increase in the deductible, it shall be responsible for paying any increased amount that would otherwise have been assessed to the Owner. The failure to provide notice shall not invalidate or affect any other provision in this Declaration.

8.3. Comprehensive General Liability (CGL) Insurance. The Association shall obtain CGL insurance insuring the Association, the agents and employees of the Association, and the Owners, against liability incident to the use, ownership or maintenance of the Common Area or membership in the Association. The coverage limits under such policy shall not be less than Two Million Dollars (\$2,000,000.00) covering all claims for death of or injury to any one person or property damage in any single occurrence. Such insurance shall contain a Severability of Interest Endorsement or equivalent coverage which should preclude the insurer from denying the claim of an Owner because of the negligence acts of the Association or another Owner.

8.4. Director's and Officer's Insurance. The Association shall obtain Directors' and Officers' liability insurance protecting the Board of Directors, the officers, and the Association against claims of wrongful acts, mismanagement, failure to maintain adequate reserves, failure to maintain books and records, failure to enforce the Project's Documents, and breach of contract (if available). This policy shall: (1) include coverage for volunteers and employees, (2) include coverage for monetary and non-monetary claims, (3) provide for the coverage of claims made under any fair housing act or similar statute or that are based on any form of discrimination or civil rights claims, and (4) provide coverage for defamation. In the discretion of the Board of Directors, the policy may also include coverage for any manager and any employees of the manager and may provide that such coverage is secondary to any other policy that covers the manager or any employees of the manager.

8.5. Insurance Coverage for Theft and Embezzlement of Association Funds. The Association shall obtain insurance covering the theft or embezzlement of funds that shall: (1) provide coverage for an amount of not less than the sum of three (3) months' regular assessments in addition to the prior calendar year's highest monthly balance on all operating and reserve funds, and (2) provide coverage for theft or embezzlement of funds by: (a) Officers and Board of Directors members of the Association, (b) employees and volunteers of the Association, (c) any

manager of the Association, (c) officers, directors, and employees of any manager of the Association, and (d) coverage for acts.

8.6. **Worker's Compensation Insurance.** The Board of Directors shall purchase and maintain in effect workers' compensation insurance for all employees of the Association to the extent that such insurance is required by law and as the Board of Directors deems appropriate.

8.7. **Certificates.** Any insurer that has issued an insurance policy to the Association shall issue a certificate of insurance to the Association and upon written request, to any Owner or Mortgagee.

8.8. **Named Insured.** The named insured under any policy of insurance shall be the Association. Each Owner shall also be an insured under all property and CGL insurance policies.

8.9. **Association has the Right to Negotiate All Claims and Losses and Receive Proceeds.** Insurance proceeds for a loss under the Association's property insurance policy are payable to an Insurance Trustee if one is designated, or to the Association, and shall not be payable to a holder of a security interest. An Insurance Trustee, if any is appointed, or the Association shall hold any insurance proceeds in trust for the Association, Owners, and lien holders. Insurance proceeds shall be disbursed first for the repair or restoration of the damaged property, if the property is to be repaired and restored as provided for in this Declaration. After any repair or restoration is complete and if the damaged property has been completely repaired or restored, any remaining proceeds shall be paid to the Association. If the property is not to be repaired or restored, then any remaining proceeds after such action as is necessary related to the property has been paid for, shall be distributed to the Owners and lien holders, as their interests remain with regard to the Living Units. Each Owner hereby appoints the Association, or any Insurance Trustee, as attorney-in-fact for the purpose of negotiating all losses related thereto, including the collection, receipt of, and appropriate disposition of all insurance proceeds; the execution of releases of liability; and the execution of all documents and the performance of all other acts necessary to administer such insurance and any claim. This power-of-attorney is coupled with an interest, shall be irrevocable, and shall be binding on any heirs, personal representatives, successors, or assigns of the Owner.

8.10. **Insurance Trustee.** In the discretion of the Board of Directors or upon written request executed by Owners holding at least 50% of the Allocated Interest, the Board of Directors shall hire and appoint an insurance trustee ("Insurance Trustee"), with whom the Association shall enter into an insurance trust agreement, for the purpose of exercising such rights under this paragraph as the Owners or Board of Directors (as the case may be) shall require.

8.11. **Owner Act Cannot Void Coverage Under Any Policy.** Unless an Owner is acting within the scope of the Owner's authority on behalf of the Association and under direct

authorization of the Association, an Owner's act or omission may not void an insurance policy or be a condition to recovery under a policy.

8.12. **Waiver of Subrogation against Owners and Association.** All property and CGL policies must contain a waiver of subrogation by the insurer as to any claims against the Association and the Owners and their respective agents and employees.

8.13. **Annual Insurance Report.** Not later than sixty (60) days prior to the beginning of each fiscal year, Board of Directors may obtain a written report by a reputable insurance broker, agent, or consultant (who may be the insurance provider/agent/broker used by the Association) setting forth the existing insurance obtained pursuant to the Declaration and stating whether in the opinion of such broker or consultant, the insurance complies with the requirements of the Declaration and the Act. Such report may also set forth recommendations regarding current policy provisions and for additional insurance reasonably required for the protection of the Owners and Lenders in light of the insurance then available and the prevailing practice with respect to other similar condominium projects. The Board of Directors shall be protected in relying on the written report furnished pursuant to this Subsection provided reasonable care and prudence were exercised in selecting such insurance broker, agent, or consultant. The most recent annual insurance report shall be made available to all Lenders and Owners upon request.

8.14. **Applicable Law.** This Declaration is specifically subjecting the Association to the insurance requirements required by U.C.A. §57-8a-401 through §57-8a-407, and any amendments thereto and thereafter enacted by law. It is the intent of this provision that any future changes to the insurance laws applicable to condominium associations shall apply to this Association.

## **IX. USE RESTRICTIONS**

9.1. **Use of Common Areas.** The Common Areas shall be used only in a manner consistent with their community nature and with the use restrictions applicable to Lots and Living Units.

9.2. **Use of Lots and Living Units.** All Lots are intended to be improved with Living Units and are restricted to such use. Except as may be approved to the contrary, each Living Unit shall be used only as a single-family residence. No gainful occupation, profession, trade, or other nonresidential use shall be conducted on any Lot or Living Unit without the prior written consent of the Board and applicable governmental entities. However, the Board shall not approve commercial activities otherwise prohibited by this Section unless the Board determines that only normal residential activities would be observable outside of the Living Unit and that the

activities would not be in violation of applicable local ordinances. No Lot or Living Unit shall be used, occupied, or altered in violation of law, so as to jeopardize the support of any other Living Unit, so as to create a nuisance or interfere with the rights of any Owner, or in any way which would result in an increase in the cost of any insurance covering the Common Areas.

9.3 **Offensive or Unlawful Activities.** No noxious or offensive activities shall be carried on upon any Lot, Living Unit, or Common Area, nor shall anything be done or placed on any Lot or Common Area which interferes with or jeopardizes the quiet enjoyment of other Lots, Living Units, or the Common Areas, or which is a source of annoyance to residents. No unlawful use shall be made of a Lot or any part thereof, and all valid laws, zoning ordinances and regulations of all governmental bodies having jurisdiction thereof shall be observed. No use shall be made of any Living Unit which shall cause the improvements within the Development or any part thereof to be uninsurable against loss by fire or other perils included in insurance contracts, or cause such insurance to be canceled or suspected, or cause any company issuing such insurance to refuse renewal thereof.

9.4. **Recreational Vehicles.** No boats, trailers, motorhomes, large trucks, commercial vehicles, or the like belonging to Owners or other residents of the Property shall be parked within the Development, not to exceed forty-eight (48) hours. No motor vehicle of any kind shall be repaired, constructed, or reconstructed upon any Lot, Private Street or other Common Areas, except for emergency repairs to vehicles. Any motor recreational vehicle must be kept in an enclosed garage.

9.5. **Pets.** No animals shall be kept in the Project except household pets. Such pets may not be kept or bred for any commercial purpose and shall have such care and restraint so as not to be obnoxious or offensive on account of noise, odor, or unsanitary conditions. No savage or dangerous animals shall be kept. No more than two household pet may be kept in any Unit without the written permission of the Association. No pets shall be permitted to run loose upon the Common Areas.

9.6. **Machinery and Equipment.** No machinery or equipment of any kind shall be placed, used, operated, or maintained on or adjacent to any Lot except such machinery or equipment as is usual and customary in connection with the use, maintenance, or construction of a Living Unit or appurtenant structures.

9.7. **Nuisances.** No rubbish or debris of any kind shall be placed upon or adjacent to any Lots, so as to render such Lot or portion thereof unsanitary, unsightly, offensive, or detrimental to other Owners. No Living Unit or Lot shall be used in such manner as to obstruct or interfere with the enjoyment of Occupants of other Living Units or Lots. Without any of the foregoing, no exterior speakers, horns, whistles, bells, or other sound devices (except security devices used exclusively for security purposes) shall be located or placed on Lots or in Living Units. Smoking in Common Areas is considered a nuisance and is expressly prohibited.

9.8. **Signs.** No signs whatsoever (including, without limitation, political signs) shall be erected or maintained on any Lot, except such signs as may be required by legal proceedings, or a "For Sale" or "For Rent" sign, to the extent permitted, and in conformance with the Rules and Regulations promulgated by the Board.

9.9. **Trash Containers and Collection.** All garbage and trash shall be placed and kept in covered containers of a type and style which shall be approved by the Board. Insofar as possible, such containers shall be maintained as not to be visible from the street view except to make them available for collection and then only for the shortest time necessary to effect such collection.

9.10. **Smoke and Carbon Monoxide Detectors.** Each Living Unit shall have an operable carbon monoxide detector and smoke detectors as required by building code. The Board may, but is not required to, enter a Living Unit to ensure that it is in compliance with this Section and Section 9.11 below. Smoking is allowed except in common and limited common areas

9.11. **Unit Heating.** Owners shall heat Units to no less than fifty-degrees (50° F) at all times to prevent pipes from freezing.

9.12. **Parking.** No parking is allowed on roadways or streets within the Project boundaries. This prohibition on parking on roadways and streets is for all vehicles, including but not limited to, automobiles, trucks, buses, tractors, camping vehicles, boats, bus trailers, snowmobiles, mobile homes, two, three or four wheeled motor vehicles, or other wheeled vehicles, shall be permitted to be parked on any private street. Furthermore, the Board of Directors is authorized to adopt and implement reasonable rules and regulations pertaining to parking within the Project boundaries. The Board of Directors may hire at their discretion a third party parking enforcement company to enforce any rules and regulations.

9.13. **Renting of Living Units.** Notwithstanding anything to the contrary contained in this Declaration, the leasing or renting of any Living Unit within the Project shall be governed by this Section. An Owner may "rent" his/her Living Unit subject to the limitations and requirements of this Section. For the purposes of this Section only, the term "rent" in any grammatical form includes leasing, subletting or otherwise permitting or allowing someone other than an Owner to reside in a Living Unit in exchange for legal consideration payable to the Owner or to others at the Owner's request or direction, or allow others to reside therein alone for charitable purposes without the owner in residence. No Living Unit may be rented for a period of less than six (6) consecutive months and an Owner may not rent less than the entire Living Unit. A Living Unit may not be rented except by written agreement that requires the tenants to abide by the Governing Documents and specifically provides that a violation of any provision of the Governing Documents is a breach under the rental agreement. A copy of the rental agreement shall be provided to the Board upon request. The Board may adopt by resolution, Rules that establish the contents or exact form of rental agreements, and any other Rules deemed necessary by the Board to implement this Section. Pursuant to Rules adopted under this Section, if the Board determines that a tenant has violated a provision of the Governing Documents, after notice and an opportunity for a hearing as provided by the Act, the Board may assess fines against the Owner and/or require an Owner to terminate a rental agreement. No Owner may purchase more than one (2) Living Units within the Project. No more than twenty five percent (25%) of the Living Units can be used as rentals within the community at a given time.

9.14. **No Patio / Deck Storage.** No observable outdoor storage of any kind shall be permitted on patios, front yards, porches, etc., except for patio furniture and portable barbecue



grills in good condition which may be maintained on patios. Said patio furniture shall conform with standards set by the Architectural Committee.

## **X. ARCHITECTURAL CONTROLS**

10.1. **Architectural Control Committee.** The Board may appoint a three (3) member Architectural Control Committee, the function of which shall be to ensure that all improvements and landscaping within the Property harmonize with existing surroundings and structures (herein the "Committee"). The Committee need not be composed of Owners. If such a Committee is not appointed, the Board shall perform the duties required of the Committee.

10.2. **Architectural Controls.** Notwithstanding any other provision to the contrary, no Owner shall make structural alterations or modifications to his Unit or to any of the Common Areas or Limited Common Areas, including but not limited to, the erection of antennas, aerials, awnings, the placement of any reflective or other materials in the windows of his Unit or other exterior attachments and signs or other advertising devices without the written approval of the Association. The Association shall not approve any alterations, decorations or modifications which would jeopardize or impair the soundness, safety or appearance of the Project. No exterior changes whatsoever shall be commenced, erected, maintained, made or done without the prior written approval of the Board of Directors. The Board of Directors or Committee may designate the design, color, style, model and manufacturer of any exterior improvement or alteration that is acceptable to the Board of Directors. Such designations shall be for the purpose of achieving uniformity of appearance and preservation of property values. No interior structural changes whatsoever shall be commenced, erected, maintained, made or done without the prior written approval of the Board of Directors or Committee. By way of illustration, but not of limitation, the following are considered interior structural changes: moving, removing, adding, or altering walls, doorways, windows, skylights, venting, and the like. In the event said Board, or its designated committee, fails to approve or disapprove such design and location within thirty (30) days after said plans and specifications have been submitted to it, approval will not be required and this Article will be deemed to have been fully complied with.

10.3. **Liability for Damages.** The Committee shall not be held liable for damages by reason of any action, inaction, approval, or disapproval by it made pursuant to this Article X.

## **XI. ENFORCEMENT**

The Association or any Owner shall have the right to enforce, by proceedings at law or in equity, each provision of this Declaration, including the right to prevent any violation of such, and the right to recover damages and other sums for such violation(s). The Association or any Owner shall also have the right to enforce by proceedings at law or in equity the provisions of the Bylaws and the Rules and any respective amendments thereto. The prevailing party in any action for the enforcement of any provisions of the Governing Documents (including but not limited to litigation and the appeal thereof) shall be entitled to collect court costs and reasonable attorneys' fees. Notwithstanding the provisions of this Section, this Section shall not apply to any Non-Operational Controversy, as parties to any Non-Operational Controversy shall bear their own attorney fees and costs.

## **XII. DECLARANT RIGHTS**

12.1. **Administrative Control of Association.** Declarant shall assume full administrative control of the Association through an appointed interim Board, which shall serve until the turnover Meeting. The Turnover Meeting shall be held at the Declarant's option and sole discretion but shall not be held later than three (3) years from the date that the last Lot to be developed upon the Property is sold. Declarant may elect to relinquish control of the Association at an earlier time by written notice to Owners and the Turnover Meeting shall be held within ninety (90) days of such notice.

12.2. **Other Rights.** In addition to any other rights under the Governing Documents, as long as Declarant owns at least one (1) Lot within the Project, Declarant:

(a) **Sales Office.** Shall have the right to maintain a sales office and model on one or more of the Lots which Declarant owns. Declarant and prospective purchasers and their agents shall have the right to use and occupy the sales office and models during reasonable hours any day of the week.

(b) **"For Sale Signs."** May maintain a reasonable number of "For Sale" signs, the size of which may be determined by Declarant, at reasonable locations on the Project, including without limitation, the Common Area.

(c) **Declarant Exemption.** Unless specifically and expressly bound by a provision of the Governing Documents, Declarant shall be exempt from the provisions of the Governing Documents.

### **12.3. Easements Reserved to Declarant.**

(a) The reservation to Declarant, its successors and assigns, of non-exclusive easements and rights of way over those strips or parcels of land designated or to be designated on the Plat as "Public Utility Easement," or otherwise designated as an easement area over any road or Common Area on the Project, and over those strips of land running along the front, rear, side and other Lot lines of each Lot shown on the Plat.

(b) An easement for the installation, construction, maintenance, reconstruction and repair of public and private utilities to serve the Project and the Lots therein, including but not limited to the mains, conduits, lines, meters and other facilities for water, storm sewer, sanitary sewer, gas, electric, telephone, cable television, and other public or private services or utilities deemed by Declarant necessary or advisable to provide service to any Lot, or in the area or on the area in which the same is located.

(c) Easement granting the privilege of entering upon the Common Areas for such purposes and making openings and excavations thereon, which openings and excavations shall be restored in a reasonable period of time, and for such alterations of the contour of the land as may be necessary or desirable to affect such purposes.

(d) The reservation to the Declarant and its successors and assigns, of a non-exclusive easement and right-of-way in, through, over and across the Common Area for the purpose of the storage of building supplies and materials, and for all other purposes

reasonably related to the completion of construction and development of the Project and the provision of utility services, and related services and facilities

(e) The Declarant reserves unto itself and its successors and assigns, the right to dedicate all of said roads, streets, alleys, rights of way or easements, including easements in the areas designated as "open space" and storm water management reservation, to public use all as shown on the Plat. No road, street, avenue, alley, right of way or easement shall be laid out or constructed through or across any Lot or Lots in the Project except as set forth in this Declaration, or as laid down and shown on the Plat, without the prior written approval of the Board.

(f) Declarant further reserves unto itself and its successors and assigns, the right at or after the time of grading of any street or any part thereof for any purpose, to enter upon any abutting Lot and grade a portion of such Lot adjacent to such street, provided such grading does not materially interfere with the use or occupancy of any structure built on such Lot, but Declarant shall not be under any obligation or duty to do such grading or to maintain any slope.

### **XIII. RIGHTS OF FIRST MORTGAGEE**

Notwithstanding anything contrary contained herein, the following provisions apply:

13.1. **Rights of First Refusal.** Any "right of first refusal" which may be granted herein shall not impair the rights of the first Mortgagee of a Lot to: (1) foreclose or take title to a Lot pursuant to the remedies provided in the Mortgage; (b) accept a deed (or assignment) in lieu of foreclosure in the event of default by a mortgagor; or (c) sell or lease a Lot acquired by a Mortgagee.

13.2. **Title in Mortgagee.** Any first Mortgagee who obtains title to a Lot pursuant to the remedies provided in the Mortgage or foreclosure of the Mortgage will not be liable for such Lot's Assessments or charges which accrue prior to the acquisition of title of such Lot by the Mortgagee. However, such first Mortgagee shall be responsible for Assessments or charges levied while it holds title to the Lot.

13.3. **Notice of Default by Lot Owner.** In the event an Owner neglects for a period of sixty (60) days or more to cure any failure on his part to perform his obligations under this Declaration or other Governing Documents, the Association, upon written request from the Mortgagee, shall give written notice of such fact to the Mortgagee covering such Owner's Lot.

13.4. **Abandonment, Termination, Etc.** Unless all of the holders of first Mortgages on the individual Lots have given their prior written approval, neither the Association nor the Owners acting as a group shall be entitled by act, omission or otherwise to abandon or terminate the Project.

13.5. **No Priority.** No provision herein is intended, nor shall it be construed, to give any Lot Owner, or any other party, priority over any rights of the first Mortgagee of a Lot pursuant to its Mortgage in the case of a distribution to such Lot Owner of insurance proceeds or

condemnation awards for losses to or a taking of Common Areas.

#### **XIV. RIGHT OF ENTRY**

The Association acting through the Board or its duly authorized agent shall have the right at all times upon reasonable notice of at least 48 hours to enter upon or into any Lot or Living Unit, without trespass, and regardless of whether or not the Lot Owner or Occupant thereof is present at the time, to abate any infractions, to fulfill its responsibilities, to exercise its rights, to make repairs or correct any violation of any of the Declaration or Rules, and in connection therewith shall have the further right to assess all costs incurred against the Owner, such Assessment to be secured by a lien provided in Article V. Notice shall not be necessary in case of an emergency originating in or threatening such Living Unit or any other part of the Project, including the sound or sight of running water in a Living Unit, the smell or sight of smoke in a Living Unit, abnormal or excessive noises; and foul smell. Owners shall also maintain up-to-date emergency contact information records with the Association, including any local representative an Owner may have. Owners shall be responsible for any costs incurred by the Association as a result of entering a Living Unit under this Section and shall indemnify and hold harmless the Association for all damages related to such entry, except for such damages resulting from recklessness or bad faith.

#### **XV. MISCELLANEOUS**

15.1. **Notices.** Any notice required or permitted to be given to any Owner or Member according to the provisions of this Declaration shall be deemed to have been properly furnished if personally delivered, emailed, or if mailed, postage prepaid, to the person who appears as a Member or Owner, at the latest email or mailing address for such person appearing in the records of the Association at the time of mailing. If no mailing address has been provided, the Lot owned by said Owner shall be used for notice purposes.

15.2. **Amendment.** Except as otherwise provided herein, this Declaration and/or the Plat may be amended only upon the affirmative vote of at least sixty-seven percent (67%) of the Lot Owners. Amendments to the Declaration shall be proposed by either a majority of the Board or by at least thirty percent (30%) of the Lot Owners. The proposed amendment must be reduced to writing and must be included in the notice of any meeting at which action is to be taken thereon. Any amendment(s) shall be effective upon recordation in the office of the recorder of Weber County, State of Utah. In such instrument the Board and/or president of the Association shall certify that the vote required by this Section for amendment has occurred. If a Lot is owned by more than one Owner, the signature of any one Owner shall be sufficient to constitute approval for that Lot under this Section. If a Lot is owned by an entity or trust, the signature of any one officer, trustee, or agent of the entity shall be sufficient to constitute approval for that Lot under this Section. No acknowledgment of any signature shall be required.

(a) **Declarant's Right to Amend.** Notwithstanding anything in this Declaration, so long as the Declarant owns any Lot within the Association, the Declarant shall have the unilateral right to amend the Declaration.

15.3. **Consent in Lieu of Voting.** In any case in which this Declaration requires authorization or approval of a transaction the assent or affirmative vote of a stated percentage of the

votes present or represented at a meeting, such requirement may be fully satisfied by obtaining, with or without a meeting, consents in writing to such transaction from Members entitled to cast at least the stated percentage of all membership votes outstanding in the Association. The following additional provisions shall govern any application of this Section 15.3:

(a) All necessary consents must be obtained prior to the expiration of ninety (90) days after the first consent is given by any Member.

(b) The total number of votes required for authorization or approval under this Section 15.3 shall be determined as of the date on which the last consent is signed.

(c) Except as provided in the following sentence, any change in ownership of a Lot which occurs after consent has been obtained from the Owner thereof shall not be considered or taken into account for any purpose.

15.4. **Dissolution.** Subject to the restrictions set forth in Article XIII of this Declaration pertaining to Mortgagee protection, the Association may be dissolved by the affirmative assent in writing from 90% of the Lot Owners. Upon dissolution of the Association, all of its agency or authority to be used for purposes similar to those provided for in the Articles of Incorporation or this Declaration. In the event such dedication or transfer is not made or is not accepted, the Association's assets shall be transferred to a nonprofit corporation, trust, or other entity to be used for such similar purposes, and each Owner shall continue to be obligated to make assessment payments for the maintenance and upkeep of the Common Areas, common access roadways, curbs, gutters, and sidewalks on a pro rata basis which conforms substantially with the assessments procedure, terms and conditions set forth in Article V of this Declaration.

15.5. **Interpretation and Severability.** The captions which precede the Articles and Sections of this Declaration are for convenience only and shall in no way affect the manner in which any provision hereof is constructed. Whenever the context so requires, the singular shall include the plural, the plural shall include the singular, the whole shall include any party thereof, and any gender shall include the other gender. The invalidity or unenforceability of any portion of this Declaration shall not affect the validity or enforceability of the remainder hereof.

15.6. **Covenants to Run with Land.** This Declaration and all provisions hereof shall constitute covenants to run with the land or equitable servitudes, as the case may be, and shall be binding upon and shall inure to the benefit of the Association and all parties who hereafter acquire any interest in a Lot or in the Common Areas shall be subject to the terms of this Declaration and the provisions of any Rules, agreements, instruments, and determinations contemplated by this Declaration; and failure to comply with any of the foregoing shall be grounds for an action by the Association or an aggrieved Owner for the recovery of damages, or for injunctive relief, or both. By acquiring any interest in a Lot or in the Common Areas, the party acquiring such interest consents to, and agrees to be bound by, each and every provision of this Declaration.

15.7. **No Waiver.** Failure by the Association or by any Owner to enforce any Restriction or provision herein contained, or contained in the Bylaws or the Rules, in any certain instance or on any particular occasion shall not be deemed a waiver of such right of enforcement as to any such future breach of the same or any other Restriction or provision.

15.8. **Security.** The Association shall in no way be considered an insurer or guarantor of security within or relating to the Property, including any Common Area in which the Association may have an obligation to maintain, and the Association shall not be held liable for any loss or damage by reason of any failure to provide adequate security or any ineffectiveness of security measures undertaken. Owner or Occupant agree by purchasing a Lot in this Association that Association, and the Board, are not insurers of the safety or well-being of Owners or Occupants or of their personal property, and that each Owner or Occupant assumes all risks for loss or damage to persons, the Lots, the Common Areas, and to the contents of improvements located thereon to the extent not insured by the Association. EACH OWNER AND OCCUPANT UNDERSTANDS AND ACKNOWLEDGES THAT THE ASSOCIATION AND THE BOARD HAVE NOT MADE ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND AND THAT EACH OWNER OR OCCUPANT HAS NOT RELIED UPON ANY REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, RELATIVE TO THE SECURITY OF THE TOWNHOME PROJECT.

15.9. **Effective Date.** The Declaration and any amendment hereof shall take effect upon its being filed for record in the office of the County Recorder of Weber County, Utah.

*[Certification on Next Page]*

**CERTIFICATION**

IN WITNESS WHEREOF, the Declarant has caused this Declaration to be executed by its duly authorized president and secretary.

IN WITNESS WHEREOF, this amendment is hereby executed this \_\_\_\_ day of \_\_\_\_\_ in 2022.

The Scott Group, LLC

By \_\_\_\_\_  
Scott Smoot, Manager

The Myers Group, LLC

By \_\_\_\_\_  
Luke Scott Myers, Manager

SDS7, LLC

By \_\_\_\_\_  
Scott Smoot, Manager

Bailey V Properties, LLC

By \_\_\_\_\_  
Brent Bailey, Manager

State of Utah        )  
  ss.  
County of \_\_\_\_\_)

On the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me Scott Smoot, Luke Scott Myers, and Brent Bailey who by me being duly sworn, did say that they are the Managers of the constituent owners of Master Developer for the Harrisville Park Planned Unit Development and that the foregoing instrument is signed and executed by authority of the

consent of their members.

Notary Public \_\_\_\_\_

Residing in \_\_\_\_\_

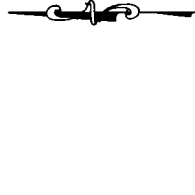
My commission expires:

**EXHIBIT A**

**LEGAL DESCRIPTION**



**WETLAND IMPACT**  
2022-02-04



**HARRISVILLE COMMUNITY PARK  
- THE SCOTT GROUP -**

**WETLAND IMPACT AREA**

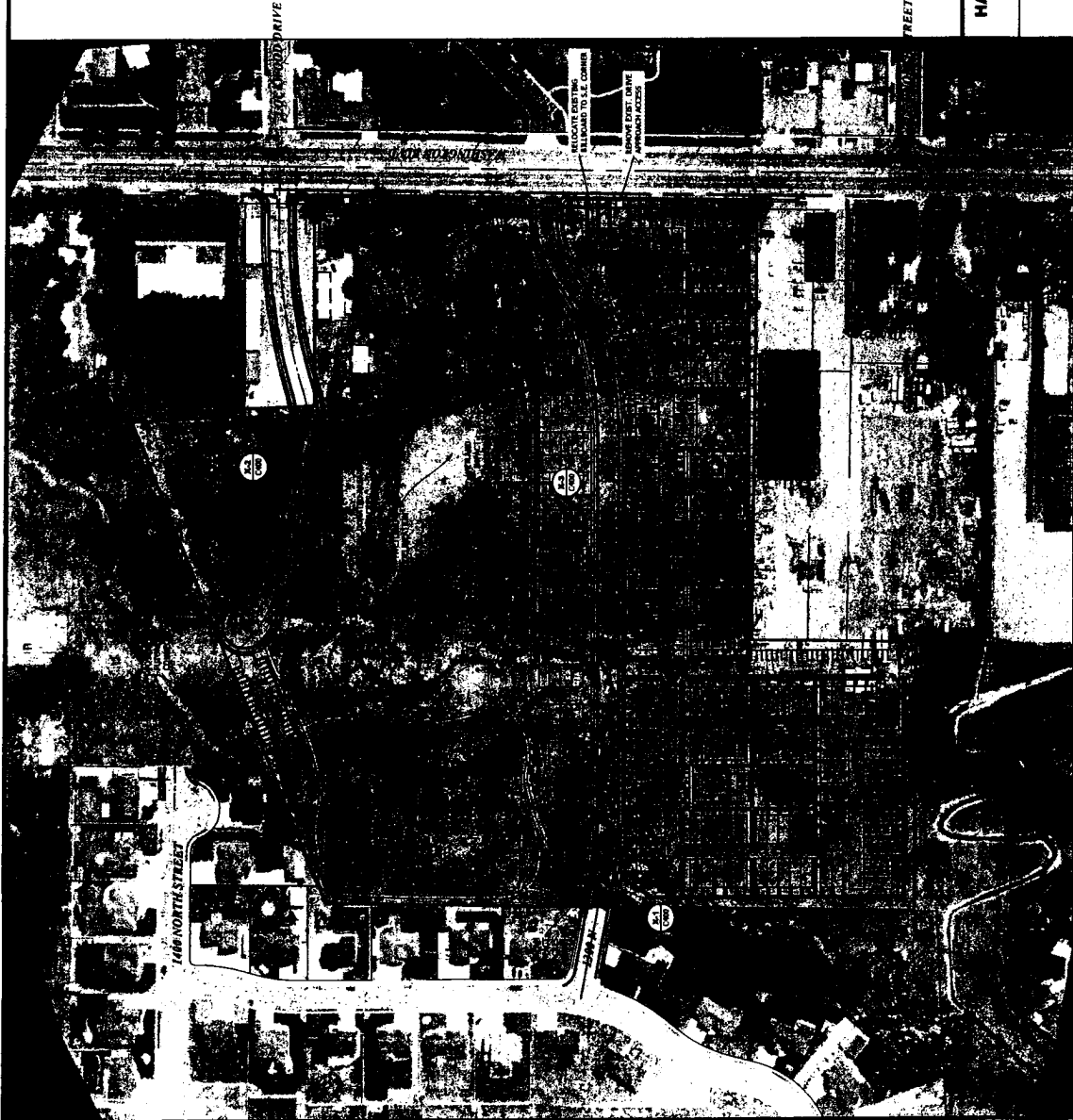
LOCKWOOD DRIVE WETLAND CROSSING 0.16 ACRES  
 1300 NORTH STREET WETLAND CROSSING 0.02 ACRES  
 STREAM RELOCATION / BANK IMPACT 0.32 ACRES  
 TOTAL WETLAND IMPACT 0.50 ACRES

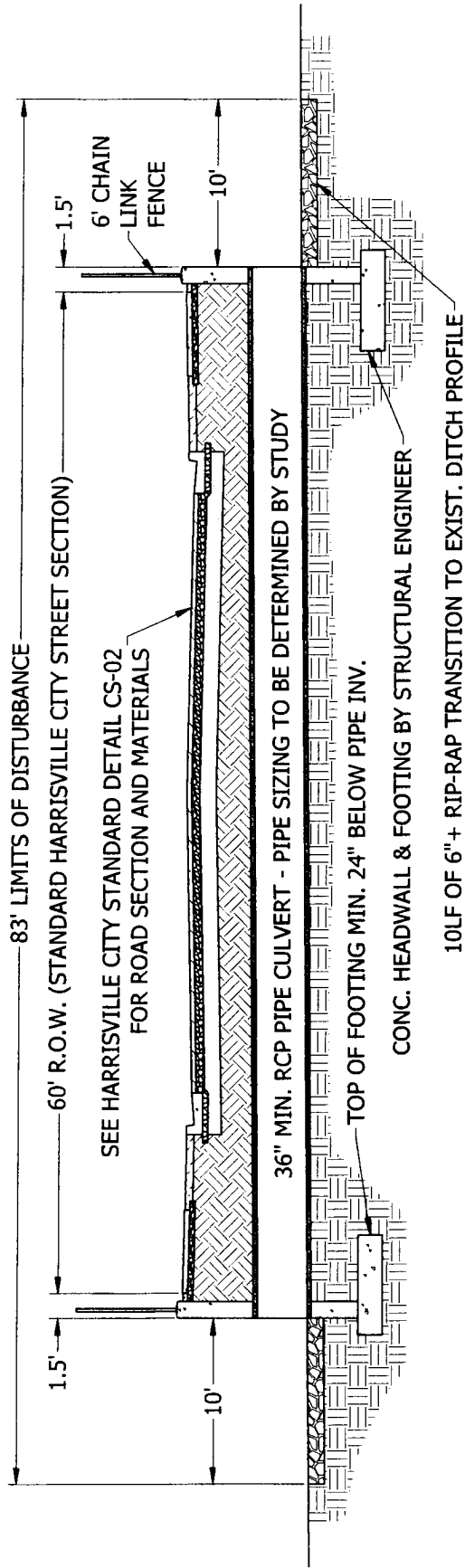
**HARRISVILLE COMMUNITY PARK  
- THE SCOTT GROUP -**

1300 WESTMANSHOUSEN BOUL PARK,  
 HARRISVILLE CITY, WEBER COUNTY, UT/PA

1470 South 64th West  
 Woods Cross, UT 84010  
 Phone 801.298.2376  
 www.Entellus.com

**C490**  
WETLAND IMPACT





# STREAM CROSSING ROAD SECTION & PIPE CULVERT

X-1  
C490


TYPICAL  
N.T.S.

CONC. HEADWALL & FOOTING BY STRUCTURAL ENGINEER  
 10LF OF 6"+ RIP-RAP TRANSITION TO EXIST. DITCH PROFILE

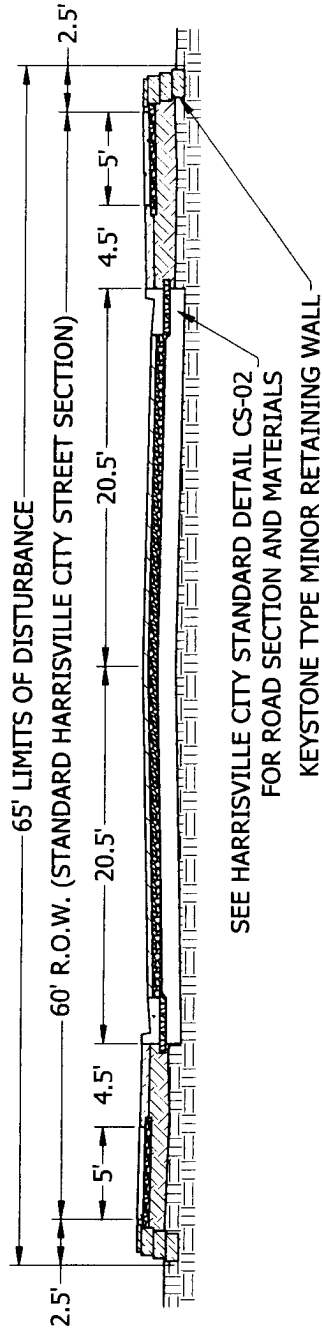
SEE HARRISVILLE CITY STANDARD DETAIL CS-02  
 FOR ROAD SECTION AND MATERIALS  
 36" MIN. RCP PIPE CULVERT - PIPE SIZING TO BE DETERMINED BY STUDY

**HARRISVILLE COMMUNITY PARK  
 - THE SCOTT GROUP -**

1300 NORTH WASHINGTON BOULEVARD  
 LOCATED IN THE SE 1/4 OF SECTION 5, T.18N., R.1W., S.11.8&M.  
 HARRISVILLE CITY, WEBER COUNTY, UTAH



1470 South 600 West  
 Woods Cross, UT 84010  
 Phone 801.298.2236  
 www.Entellus.com



SEE HARRISVILLE CITY STANDARD DETAIL CS-02  
FOR ROAD SECTION AND MATERIALS  
KEYSTONE TYPE MINOR RETAINING WALL

## WETLAND CROSSING ROAD SECTION

X-2  
C490

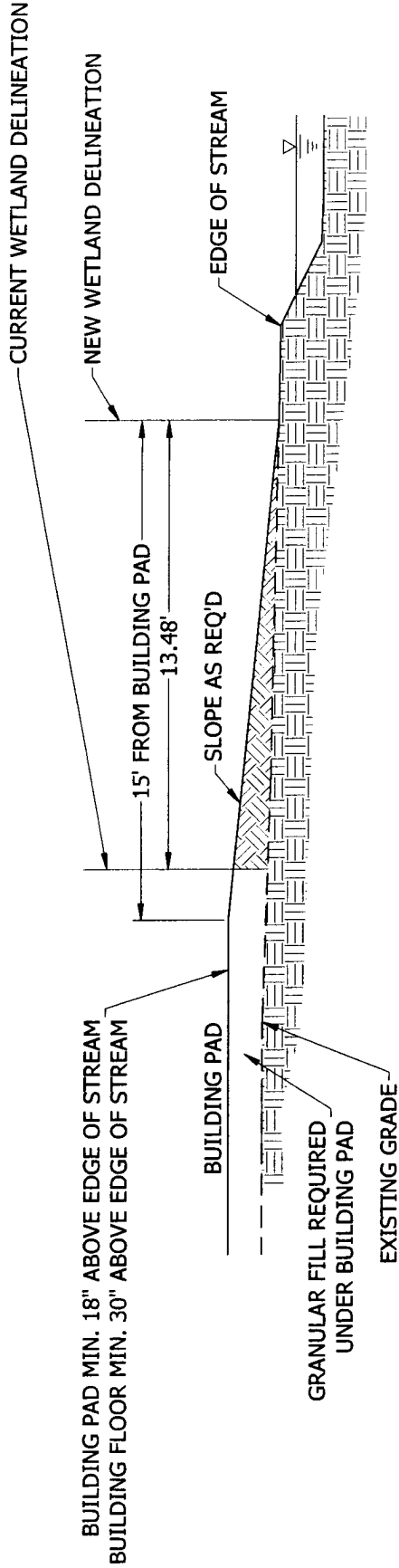
TYPICAL  
N.T.S.

**HARRISVILLE COMMUNITY PARK  
- THE SCOTT GROUP -**

1300 NORTH WASHINGTON BOULEVARD  
LOCATED IN THE SE 1/4 OF SECTION 5, T.6N., R.1W., S.1 & 2  
HARRISVILLE CITY, WEBER COUNTY, UTAH



1470 South 600 West  
Woods Cross, UT 84010  
Phone 801.298.2236  
www.Entellus.com



**STREAM PROFILE MODIFICATION**

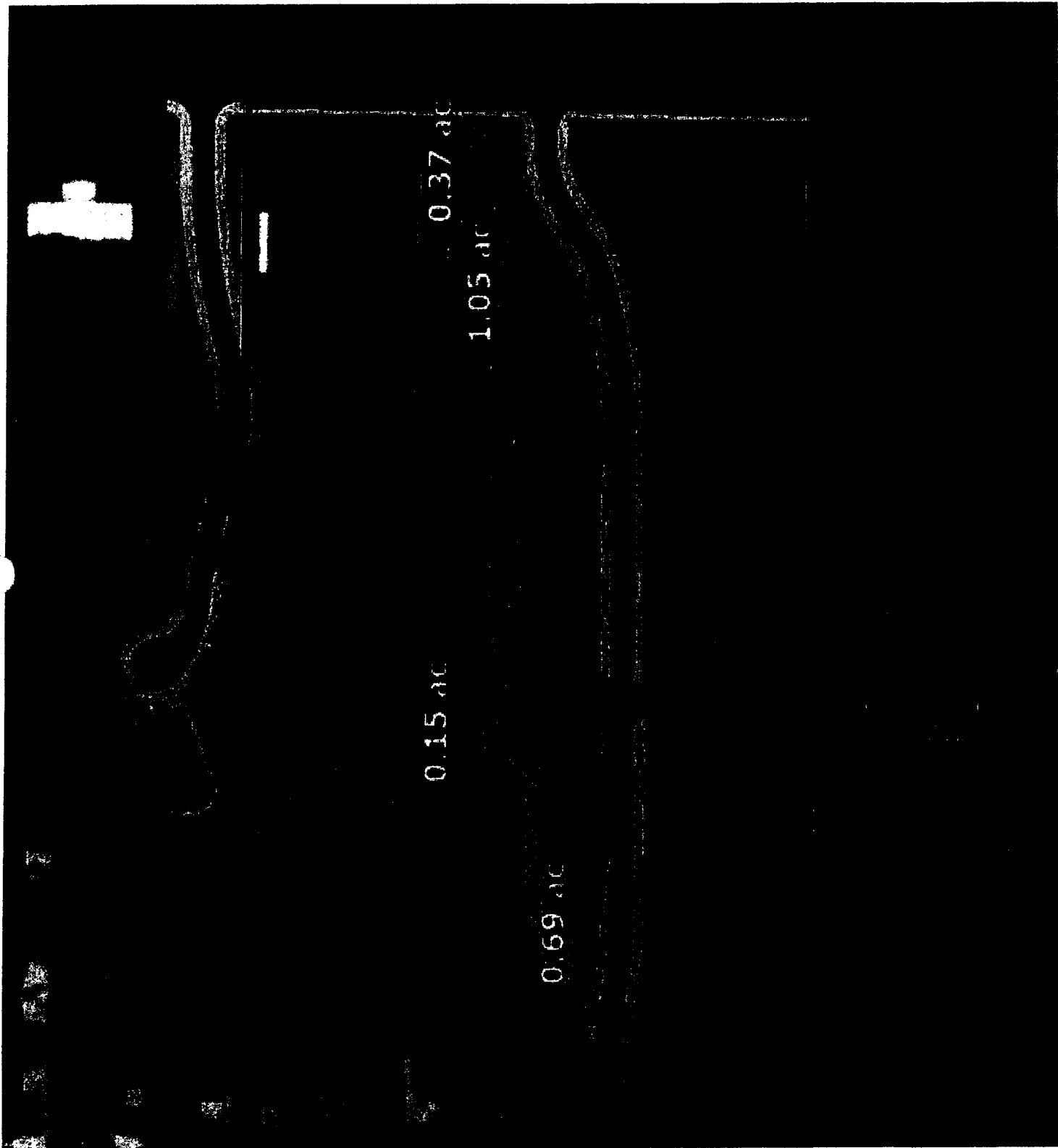
X-3  
C490

TYPICAL  
N.T.S.

**HARRISVILLE COMMUNITY PARK  
- THE SCOTT GROUP -**

1300 NORTH WASHINGTON BOULEVARD  
LOCATED IN THE SE 1/4 OF SECTION 5, T.8N., R.1W., S.11B.&M.  
HARRISVILLE CITY, WEBER COUNTY, UTAH

1470 South 600 West  
Woods Cross, UT 84010  
Phone 801.298.2236  
www.Entellus.com



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# AQUATIC RESOURCE DELINEATION REPORT

FOR THE PROPOSED HARRISVILLE PARK PROJECT

WEBER COUNTY, UTAH

SEP 13, 2021

**Prepared For:**

Scott Smoot  
1110 E Eaglewood Dr. #2  
North Salt Lake, Ut 84054  
801-628-1024  
[Sdsmoot2@gmail.com](mailto:Sdsmoot2@gmail.com)

**Prepared By:**



Nate Norman  
Balance Environmental  
4720 Hollow Road  
Nibley, Utah 84321  
[Norman.nate@gmail.com](mailto:Norman.nate@gmail.com)

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## Executive Summary

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On July 24th and 26th 2021, a Wetland and Waters of the U.S. delineation study was conducted on the Development Site located at 1371 N. Washington Blvd, Harrisville, Utah. The wetland delineation was completed in accordance with the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual (USACOE, 1987) and the Arid West Supplement (USACOE 2008). Waterways were reviewed in accordance with the 2008 "A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States." The investigation revealed wetland, a stream, and uplands within the project area. All potential wetland and waterway areas within the approximately 18.8-acre project area were checked for wetland indicators.

Three wetlands were found within the project area. The upland areas are dominated by pasture grass species, and do not appear to have been significantly impacted by historic fill. The hydrology has been historically altered due to development practices such as irrigation and storm water runoff from adjacent properties. On adjacent properties, fill has been imported for commercial development. The area has a small stream flowing through it which flows into the Western Canal and eventually connects to the Weber River.

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## Chapter 1. Introduction

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Harrisville Park Associates has retained Balance Environmental to conduct a Wetland and Waters of the United States (U.S.) delineation for the proposed Harrisville Park Project (project area). The project area includes the proposed park, mixed use development areas and commercial development areas. This report facilitates efforts to avoid or minimize impacts to aquatic resources during the design process, document aquatic resource boundary determinations for review by regulatory authorities and provide background information.

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## Chapter 2. Location

The project area is located 1371 Washington Boulevard north of Ogden in Weber County, Utah (Appendix A: Map 1). To get to the project site from I-15, take Pioneer Rd (exit 346), Turn right onto Pioneer Rd, continue onto 400 North, turn left onto 1200 West for 1.3 miles then turn right onto Harrisville Rd the project area is located on the left in 1.1 miles. (Latitude 41.281284° Longitude -111.969438°, Section 5, Township 6 North, Range 1 West).

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## Chapter 3. Methods

The field survey was conducted on July 24th and 26th 2021, by Balance Environmental. Standard routine determination data sheets were filled out for each sampling plot and photos were taken. Wetland boundaries were surveyed using a sub-meter accuracy GPS (Global Positioning System) unit.

The wetland delineation was completed in accordance with the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual (USACOE 1987) and the Arid West Supplement (USCOE 2008). All potential wetland areas were checked for wetland indicators. The following procedure was implemented at each sample point:

1. The plant species within a six-foot radius of the sample point were recorded. The percent of relative cover for each species was determined by estimating aerial cover. The indicator status of each species was determined by using the National List of Plant Species That Occur in Wetlands: Intermountain-Region 8 (USFWS 2005). If a plant species comprised at least 20 percent of the total relative cover in its stratum, it was considered to be a dominant plant species. If more than 50% of the dominant plant species had an indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC), the sample point met the wetland vegetation parameter.
2. An 18-inch-deep soil pit was dug at each sample point to assess soil characteristics. After the pit was dug, a soil profile was sliced off using a soil spade. This profile was used to determine soil color, texture, and moisture at different depths within the soil profile. Color was determined by comparing a moistened soil sample with the Munsell Soil Color Charts.

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Soil texture and moisture was determined by feeling the soil samples. If the soil characteristics met the hydric soil criteria provided in the Arid West Supplement and the Field Indicators of Hydric Soils (NRCS 2006) manuals, the sample point met the wetland soils parameter.

3. Each soil pit was examined to determine correlation with the wetland hydrology criteria. Field indicators of periodic saturation and/or inundation include redox features, drainage patterns in the wetland, sulfur odor, gleyed soils, soils with low chroma, sediment deposits, salt crust, surface soil cracks, or water-stained leaves. If at least one primary indicator or two secondary indicators were present, the sample point met the wetland hydrology parameter.

### **WATERS OF THE U.S.**

In accordance with the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley 2008), and the Updated Datasheet for the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States (Curtis and Lichvar 2010), a channel survey for Waters of the U.S was conducted. For Waters of the U.S., OHWM data sheets were completed for channels that were not ditches.

### **IRRIGATION CANALS/DITCHES**

In the recent EPA and Corps guidance (EPA 2008) for waters of U.S., it states that non-tidal ditches (including roadside and agricultural ditches) are not Waters of the U.S. unless they have a bed, bank, and ordinary high water mark; connect directly or through other tributaries to a traditional navigable or interstate water; and have at least one of the following four characteristics:

- Natural streams that have been altered (e.g., channelized, straighten or relocated);
- Ditches that have been excavated in waters of the U.S., including wetlands;
- Ditches that have relatively permanent flowing or standing water; or
- Ditches that connect two or more jurisdictional waters of the U.S.

During the study of the project area, if drainages were found within the project area, they were evaluated using criteria in the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar & McColley 2008), the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual (Environmental Laboratory 1987), and the Arid West Supplement (USACOE 2008).

The field survey was conducted on July 24th and 26th, 2021 by Balance Environmental. Wetland boundaries, sample points, waters of the U.S. and ditches were surveyed using a sub-meter GPS unit and mapped using GIS software. These can be seen on the Aquatic Resources Delineation Maps (Appendix A). Photos were taken of the aquatic resources and other areas found on site (Appendix B), and a plant list was created for the dominant plants found on-site (Appendix D).

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Data were collected at representative sample points with standard routine determination data sheets (Appendix E).

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## Chapter 4. Existing Conditions

### Landscape Setting

The total project area encompasses 27.7 acres. The Wetlands and Water of the U.S. Map shows the wetland boundaries, streams and open water areas overlaid on and on 2021 high resolution aerial photography (Appendix A, Map 1). The field visits to collect data for the aquatic resources delineation study took place in late July after drier than average months of April and June.

### Aquatic Resources

The National Wetland Inventory (NWI) map (USFWS 2013) (Appendix B) of the project area shows Palustrine Persistent Emergent (PEM) wetlands in portions of the project area. The NWI wetlands occupy both sides of the stream in the east, as well as a portion of the pasture located north of the stream and surrounding the open water boundary of the project area.

The extent of wetland areas mapped during the on-site survey was determined by the interface of wetland and upland vegetation, coincident with a topographic break from convex to concave. The depositional areas were dominated by hydrophytic plant species. The project area contains 5.85 acres of palustrine emergent marsh (PEM) wetland (see Table 1).

W-1 is a PEM wetland complex with an open water area in the middle. Hydrology appears to be largely from the adjacent unnamed stream with the addition of a high groundwater table that discharges in the lower portions of the site. The majority of the area is currently dominated by obligate plant species such as Hardstem Bulrush (*Schoenoplectus acutus*) and broadleaf cattails (*Typha latifolia*) and inundated.

W-2 is a depressional area north of W-1 that is dominated by hydrophytic vegetation and is a small basin that was observed to be dominated by hydrophytes and saturated at the time of field data collection. Based on the presence of indicators of hydric soil conditions within this basin, it is apparent that there is seasonal and persistent inundation within the basins. The area is classified as Palustrine persistent emergent seasonally flooded wetlands (PEM1C). W-2 is directly connected to W-1 through a culvert and was likely historically separated from the larger wetland through development of a roadway.

W-3 is located in a very small natural depression that temporarily holds precipitation and may intercept high ground water for short durations. The feature is completely surrounded by uplands and shows no signs of drainage away from the feature. This feature is separated from the unnamed stream (nearest water) by approximately 60 feet of uplands. The stream does not flood the subject wetland in a typical year.

**Table 1. Aquatic Resources within the Survey Area**

| Aquatic resource name | Aquatic resources classification |                        | Aquatic resource size |             |
|-----------------------|----------------------------------|------------------------|-----------------------|-------------|
|                       | Cowardin                         | Location (lat/long)    | Acre                  | Linear feet |
| W-1                   | PEM                              | 41.282277, -111.971436 | 5.31                  |             |
| W-2                   | PEM1C                            | 41.283047, -111.971421 | 0.33                  |             |
| W-3                   | PEM                              | 41.282216, -111.969520 | 0.02                  |             |
| S-1                   |                                  | 41.281530, -111.973140 | 0.61                  | 1,378       |
| OW                    |                                  | 41.282178, -111.971769 | 0.19                  | 315         |
| Total                 |                                  |                        |                       |             |

The project area was also surveyed for Waters of U.S including open water, perennial streams, ephemeral streams, irrigation canals, and ditches. The project has one perennial stream and one open water area within the project area.

The approximately 11 feet wide unnamed stream which flows from the east to the west through the project area has perennial flow based on historic aerials (Google Earth 1985- 2020). The stream flows generally southwesterly to its confluence with the Fourmile Creek approximately 1.1 miles southwest of the study area. Fourmile creek then flows into the Western Canal which then flows into the Weber River, which empties into the Great Salt Lake, the nearest

The open water area is located in the middle of W-1 and is directly connected to the unnamed stream. Looking at Google Maps imagery it appears that the amount of open water fluctuates from year to year based on water levels.

See Table 1 for dimensions of these Waters and for wetland, streams and open water locations see the Aquatic Resources Delineation Map (Appendix A).

The project area includes an east-west oriented unnamed stream that crosses from the eastern boundary of the parcel to the western boundary (Appendix A). From historic aerial photographs and the USGS topographic map (Appendix B), the stream appears to convey discharge from wetland areas to the east of the project area that are apparently supported by groundwater discharge. This discharge may or may not be augmented by irrigation tailwater from other field ditches. Flows in the north-south stream are likely to be perennial and the stream is a natural drainage. West of the project area, the stream is buried in a culvert under a development, but the source of flows appears to be the same as in previous years before the culvert was installed. Groundwater discharge is also apparently the source of hydrology to the wetlands that extend into the project area along the northern boundary of the stream.

The surface water discharges from the project area via the unnamed stream, (Appendix B). The unnamed stream is a tributary to the Western Canal that connects to the Weber River and eventually to the Great Salt Lake, which has been determined to be navigable-in-fact.

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According to the Soil Survey, three soil types occur within the project area (Appendix B), including:

- Harrisville silt loam, 0-1% slopes (HaA) – This soil occupies the pasture area Southeast corner of the property. It is also found in the southwestern corner of the pasture, including immediately south of the unnamed stream along the western property edge. The soil is somewhat poorly drained but is not classified as hydric. It's depth to the water table is 30 to 48 inches and has no frequency of flooding or ponding.
- Harrisville silt loam, 1-3% slopes (Hab) – This soil occupies the northern half of the pasture located around the wetter portions of the project area, including on both sides of the both sides of the stream. The soil is somewhat poorly drained but is not classified as hydric. It's depth to the water table is 30 to 48 inches and has no frequency of flooding or ponding.
- Jordan silt loam (Jo) – This soil occupies most of the wetter pasture starting where the stream enters the project on the eastern edge and continuing westward roughly following the stream, associated wetlands and open water areas. The soil is very poorly drained and is classified as hydric. Depth to water table is estimated at 0 to 10 inches and frequency of flooding or ponding is described as frequent.

Field observations of soil colors and textures did not coincide very well with mapped soil types, so information provided by field data was given precedence over Soil Survey information in making decisions. (Appendix B).

The project area consists of a mostly upland pasture that is grazed by livestock and supports seeded and native plant species appropriate for that use (Appendix D). Dominant plant species in the pasture include tall wheatgrass (*Thinopyrum ponticum*), Kentucky bluegrass (*Poa pratensis*), saltgrass (*Distichlis spicata*), and meadow fescue (*Schedonorus pratensis*), with weedy forbs such as dandelion (*Taraxacum officinale*) In wetter areas throughout the pasture and in close proximity to the wetlands, slightly more mesic areas support wiregrass (*Juncus arcticus*), clustered field sedge (*Carex praegracilis*), and foxtail barley (*Hordeum jubatum*). Russian olive trees (*Elaeagnus angustifolia*) occur within the project area, mostly in proximity to the unnamed stream and wetland edges. A list of common species identified in the uplands and wetlands of the project area is provided in Appendix D.

There was not any observed or documented interstate or foreign commerce associated with aquatic resources found on the site.

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## Chapter 5. Conclusions/Disclaimer

The open water area found within the project area (Table 1) has surface water connection to the unnamed stream and therefore to a traditional navigable waterway (TNW), the Great Salt Lake, which is the closest TNW. It is Balance Environmental's opinion that because W-1 and W-2 appear to be adjacent to the unnamed stream, they also are not isolated and therefore should be

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considered jurisdictional under Clean Water Act Section 404 guidelines. However, W-3 seems to be an isolated depression that appears to collect water from local surface runoff, it may not be jurisdictional. The USACE and U.S. Environmental Protection Agency (EPA) reserve the right to determine jurisdiction on a case-by-case basis (EPA/USACE 2007).

This is a preliminary determination of wetlands and other waters of the U.S. The information in this report represents the best professional judgment and conclusions of Balance Environmental and to the best of our knowledge is complete and correct. However, the Corps has final jurisdiction over the determination of whether or not a waterbody or wetland is or is not regulated. This report should be reviewed and approved in writing by the Corps. Placing fill within jurisdictional wetland open water or stream boundaries requires a 404 permit from Corps and possibly a stream alteration permit from the State of Utah. The information found in this report can be used for planning and development purposes but use at your own risk.

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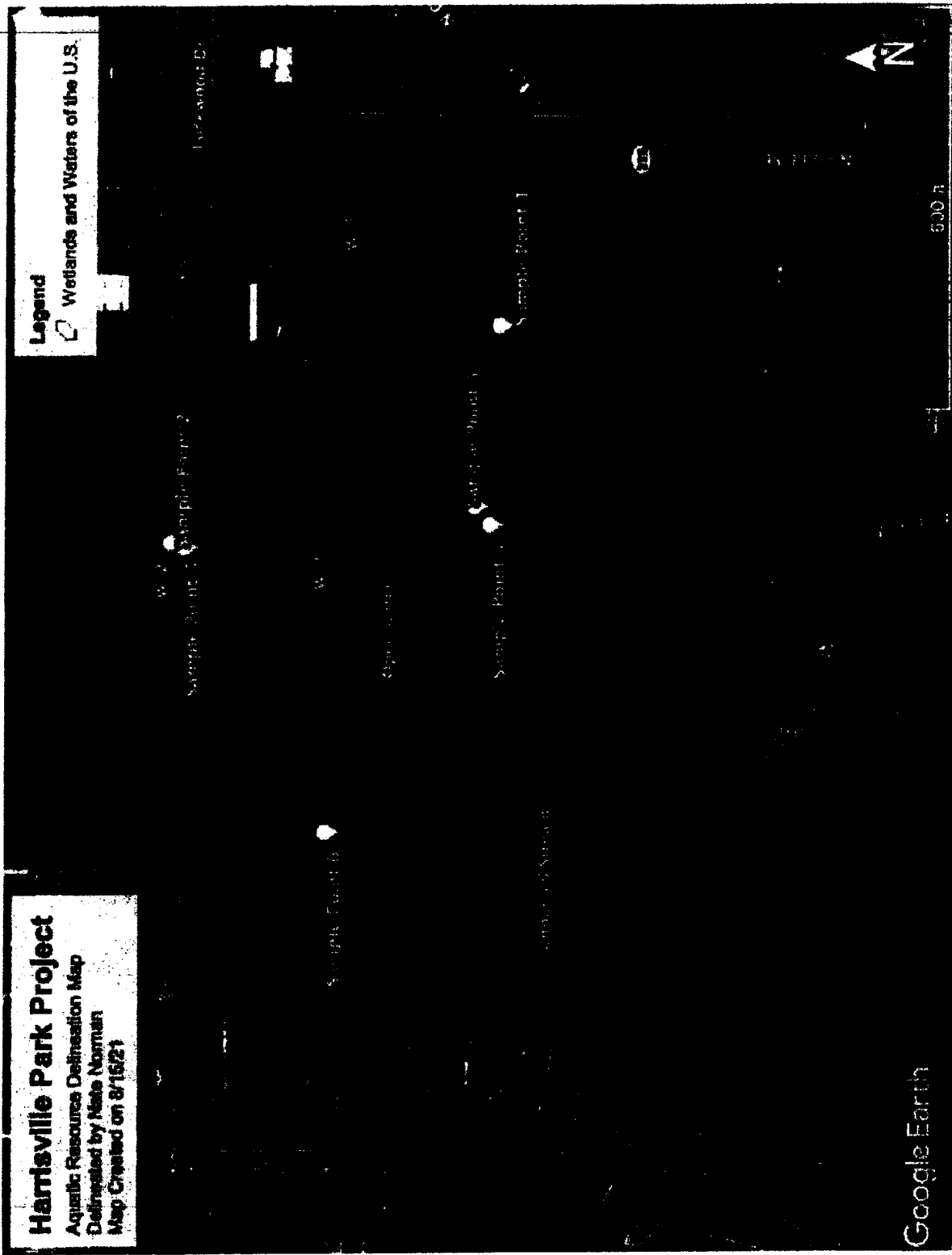
USACOE 2008. U.S. Army Corps of Engineers – Environmental Laboratory. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Version 2.0. Report ERDC/EL TR-08-28. Vicksburg, Mississippi.

USDA 2008. Natural Resources Conservation Service. 2008. The PLANTS Database, National Plant Data Center, Baton Rouge, LA 70874-4490 USA PLANTS. <http://plants.usda.gov/wetland.html>

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## Appendix A - Aquatic Resource Delineation Map

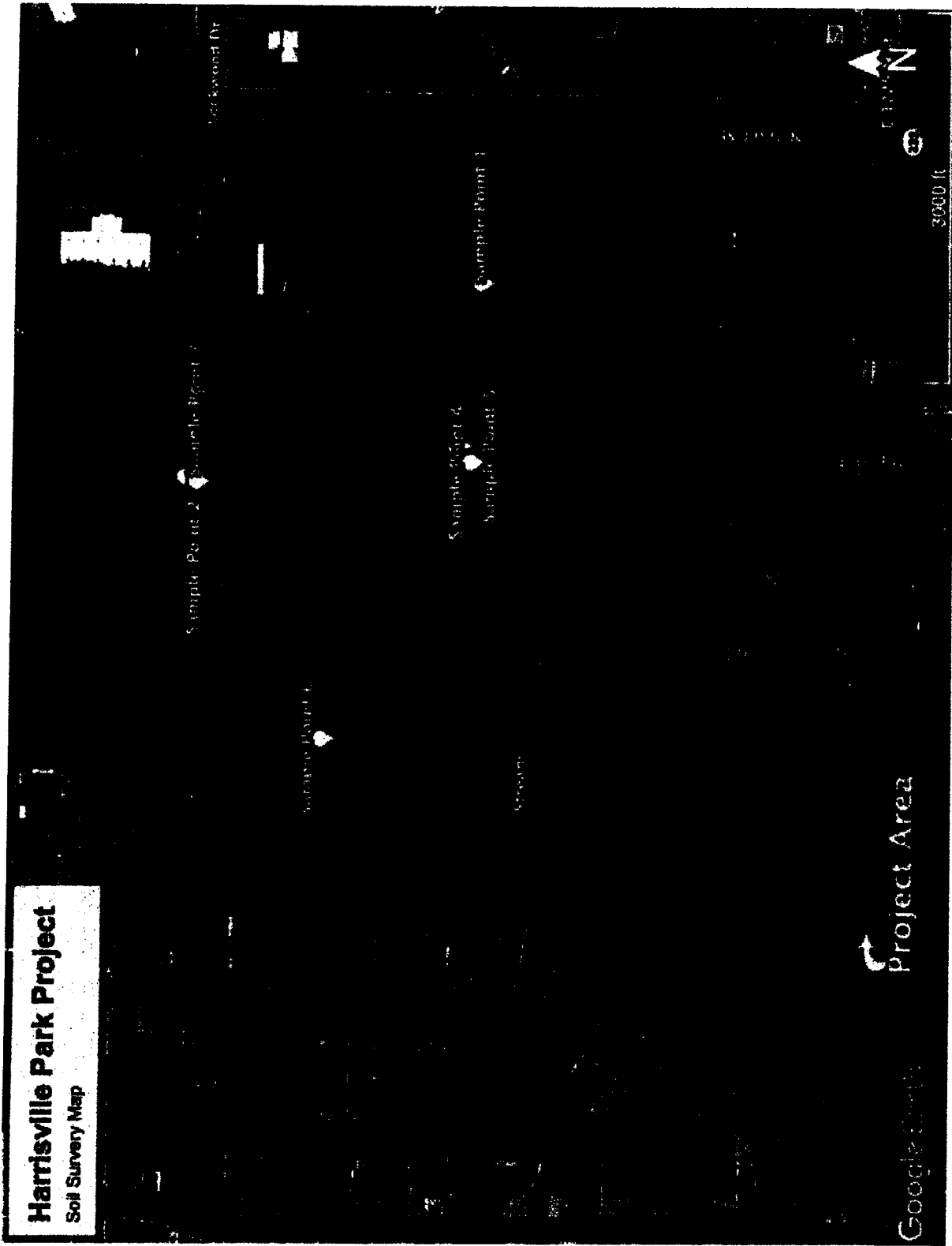


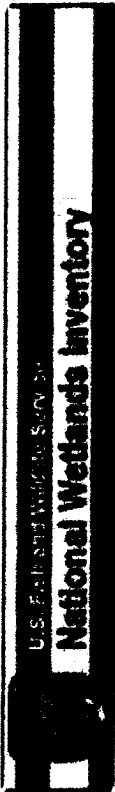


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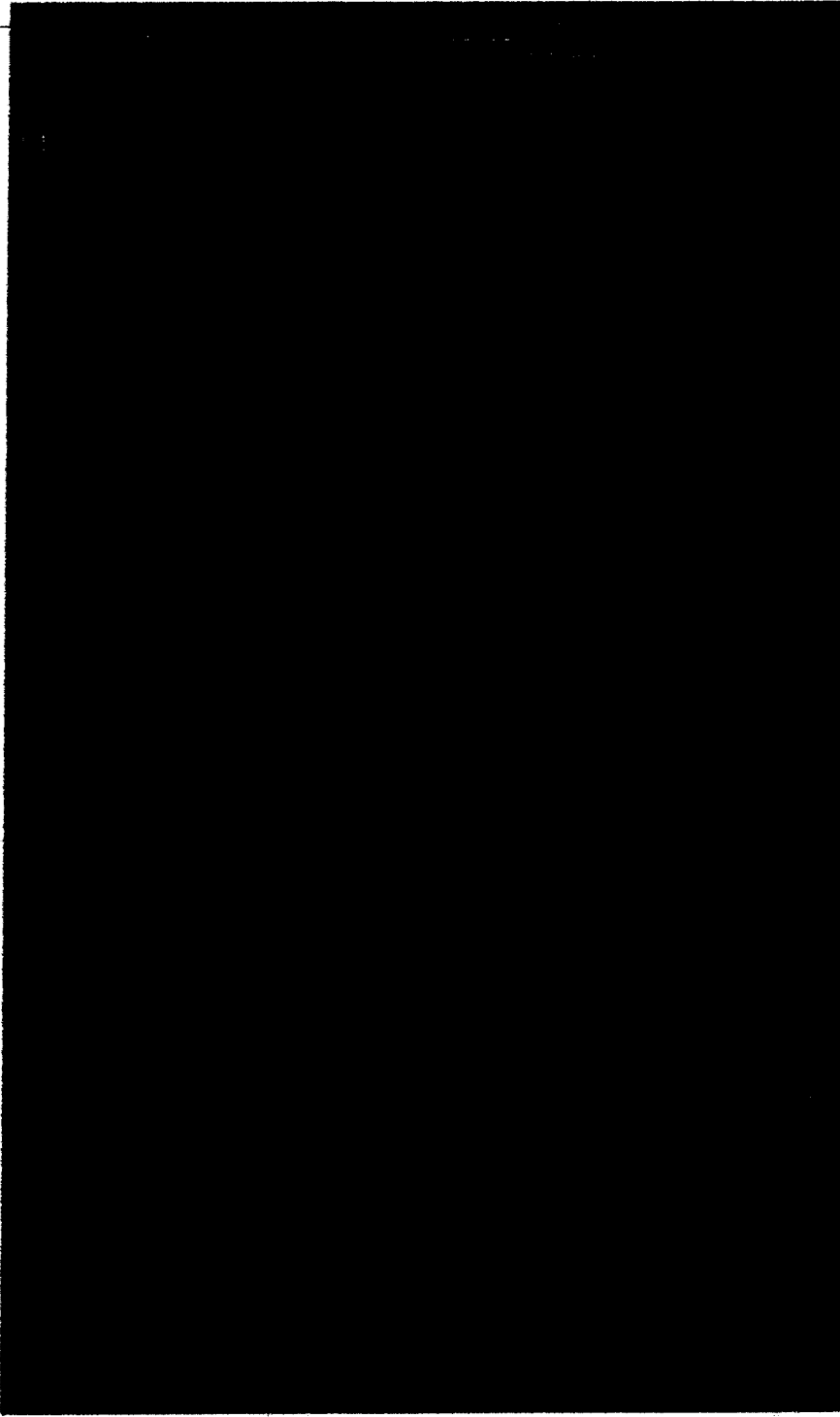
## Appendix B - Supporting Maps







NWI MAP



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or correctness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
 This page was prepared by the NWRMP

- August 8, 2021
- Wetlands
- Estuarine and Marine Deepwater
  - Estuarine and Marine Wetland
  - Freshwater Emergent Wetland
  - Freshwater Forested/Shrub Wetland
  - Freshwater Pond
  - Lake
  - Other
  - Riverine

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## Appendix C - Photographs



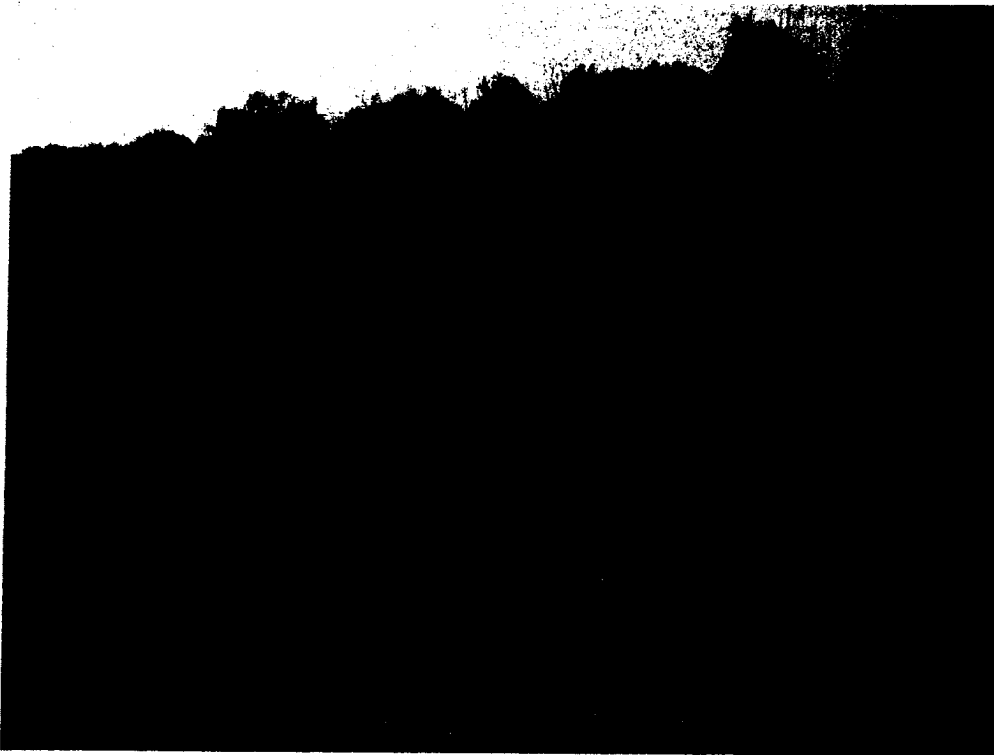
**Photo 1: Sample Point 1 facing West.**



**Photo 2: Sample Point 2 facing West.**



**Photo 3: Sample Point 3 facing West.**



**Photo 4: Sample Point 4 facing West.**





**Photo 5: Sample Point 5 facing West.**



**Photo 6: Sample Point 6 facing West.**

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## Appendix D - Plant List

| Genus                 | Species               | Common Name           | WIS  |
|-----------------------|-----------------------|-----------------------|------|
| <i>Agrostis</i>       | <i>gigantea</i>       | redtop                | FACW |
| <i>Bromus</i>         | <i>tectorum</i>       | cheatgrass            | NI   |
| <i>Carex</i>          | <i>pragracilis</i>    | clustered field sedge | FACW |
| <i>Cichorium</i>      | <i>intybus</i>        | chicory               | FACU |
| <i>Chenopodium</i>    | <i>album</i>          | lambsquarters         | FACU |
| <i>Capsella</i>       | <i>bursa-pastoris</i> | shepherd's purse      | FACU |
| <i>Cynodon</i>        | <i>dactylon</i>       | Bermudagrass          | FACU |
| <i>Distichlis</i>     | <i>spicata</i>        | saltgrass             | FAC  |
| <i>Eleocharis</i>     | <i>palustris</i>      | common spikerush      | OBL  |
| <i>Grindelia</i>      | <i>squarrosa</i>      | curlycup gumweed      | FACU |
| <i>Hordeum</i>        | <i>jubatum</i>        | foxtail barley        | FAC  |
| <i>Juncus</i>         | <i>arcticus</i>       | mountain rush         | FACW |
| <i>Lactuca</i>        | <i>serriola</i>       | prickly lettuce       | FACU |
| <i>Phleum</i>         | <i>pretenses</i>      | timothy               | FACU |
| <i>Plantago</i>       | <i>lanceolata</i>     | narrowleaf plantain   | FAC  |
| <i>Polygonum</i>      | <i>amphibium</i>      | water knotweed        | OBL  |
| <i>Ranunculus</i>     | <i>repens</i>         | creeping buttercup    | FAC  |
| <i>Schoenoplectus</i> | <i>pungens</i>        | common threesquare    | OBL  |
| <i>Taraxicum</i>      | <i>officinale</i>     | dandelion             | FACU |
| <i>Typha</i>          | <i>latifolia</i>      | broadleaf cattail     | OBL  |
| <i>Trifolium</i>      | <i>fragiferum</i>     | strawberry clover     | FAC  |
| <i>Cynodon</i>        | <i>dactylon</i>       | Bermudagrass          | FACU |
| <i>Verbena</i>        | <i>hastata</i>        | swamp verbena         | FAC  |

\*USDA Plants Database and National Wetland Plant List.

\*\* Wetland Indicator Status (WIS)

- OBL = occurs in aquatic resources > 99% of time
- FACW = occurs in aquatic resources 67-99% of time
- FAC = occurs in aquatic resources 34-66% of time
- FACU = occurs in aquatic resources 1-33% of time
- UPL = occurs in uplands > 99% of time
- NI = indicator status not known in this region

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## Appendix E - Wetland Data Sheets

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/24/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 1  
 Investigator(s): Nate Norman Section, Township, Range: S6 T6N R1W Salt Lake  
 Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LLR-D Lat: 41.281610° Long: -111.970114° Datum: NAD83  
 Soil Map Unit Name: Logan silty clay loam MVI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are 'Normal Circumstances' present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|  |   |  |   |
|--|---|--|---|
| Hydrophytic Vegetation Present?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area<br>within a Wetland? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present?   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |   |
| Wetland Hydrology Present?   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |   |
| Remarks:<br>Area is currently being grazed and not all vegetation is identifiable. |   |  |   |

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                     | Absolute % Cover | Dominant Species?             | Indicator Status | Dominance Test worksheet:   |                              |
|---|------------------|-------------------------------|------------------|---|------------------------------|
| 1 _____   |                  |                               |                  | Number of Dominant Species That Are OBL, FACW, or FAC   | <u>1</u> (A)                 |
| 2 _____   |                  |                               |                  | Total Number of Dominant Species Across All Strata:   | <u>1</u> (B)                 |
| 3 _____   |                  |                               |                  | Percent of Dominant Species That Are OBL, FACW, or FAC  | <u>100</u> (A/B)             |
| 4 _____   |                  |                               |                  | = Total Cover   |                              |
| Shrub/Strawb Stratum (Plot size _____)              |                  |                               |                  | Prevalence Index worksheet:   |                              |
| 1 _____   |                  |                               |                  | Total % Cover of:   | Multiply by:                 |
| 2 _____   |                  |                               |                  | OBL species <u>2</u>  | $\times 1 =$ <u>2</u>        |
| 3 _____   |                  |                               |                  | FACW species <u>15</u>  | $\times 2 =$ <u>30</u>       |
| 4 _____   |                  |                               |                  | FAC species <u>82</u>   | $\times 3 =$ <u>246</u>      |
| 5 _____   |                  |                               |                  | FACU species _____  | $\times 4 =$ _____           |
|   |                  |                               |                  | LPL species _____   | $\times 5 =$ _____           |
|   |                  |                               |                  | Column Totals   | <u>89</u> (A) <u>277</u> (B) |
|   |                  |                               |                  | Prevalence Index = B/A = <u>2.79</u>  |                              |
| Herb Stratum (Plot size: <u>6</u> )                 |                  |                               |                  | Hydrophytic Vegetation Indicators:  |                              |
| 1. <u>Dactyloctenium aegyptium (amaranth)</u>       | <u>75</u>        | <u>Y</u>                      | <u>FAC</u>       | <input checked="" type="checkbox"/> Dominance Test is $\geq 50\%$   |                              |
| 2. <u>Hordium jubatum (hoop barley)</u>             | <u>5</u>         | <u>N</u>                      | <u>FAC</u>       | <input checked="" type="checkbox"/> Prevalence Index is $\geq 3.0$  |                              |
| 3. <u>Panicum dichotomiflorum (leaf panicgrass)</u> | <u>10</u>        | <u>N</u>                      | <u>FACW</u>      | <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                              |
| 4. <u>Agrostis gigantea (redtop)</u>                | <u>5</u>         | <u>N</u>                      | <u>FACW</u>      | <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                               |                              |
| 5. <u>Schoenoplectus pungens (three-square)</u>     | <u>2</u>         | <u>N</u>                      | <u>OBL</u>       |   |                              |
| 6. <u>Trifolium fragiferum (strawberry clover)</u>  | <u>2</u>         | <u>N</u>                      | <u>FAC</u>       |   |                              |
| 7 _____   |                  |                               |                  |   |                              |
| 8 _____   |                  |                               |                  |   |                              |
|   |                  |                               |                  | = Total Cover   |                              |
|   |                  |                               |                  | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.                           |                              |
| Woody/Vine Stratum (Plot size: _____)               |                  |                               |                  | Hydrophytic Vegetation Present?   |                              |
| 1 _____   |                  |                               |                  | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |                              |
| 2 _____   |                  |                               |                  |   |                              |
|   |                  |                               |                  | = Total Cover   |                              |
| % Bare Ground in Herb Stratum _____                 |                  | % Cover of Biotic Crust _____ |                  |   |                              |

Remarks:  
Ditch had recently been cleaned out. Debris likely caused additional water to be diverted onto the field. wetter vegetation could be drought tolerant remnants.

**SOIL**

Sampling Point SP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|----------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-7            | 10YR 2/1      | 100 |                |   |                   |                  | CL      | Organic |
| 7-10           | 10YR 5/1      | 100 |                |   |                   |                  | Clay    |         |
|                |               |     |                |   |                   |                  |         |         |
|                |               |     |                |   |                   |                  |         |         |
|                |               |     |                |   |                   |                  |         |         |
|                |               |     |                |   |                   |                  |         |         |
|                |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) |   | Indicators for Problematic Hydric Soils <sup>3</sup> : |
|---|---|--|
| <input type="checkbox"/> Histosol (A1)                                    | <input type="checkbox"/> Sandy Redox (S5)           | <input type="checkbox"/> 1 cm Muck (A9) (LRR C)        |
| <input type="checkbox"/> Histic Epipedon (A2)                             | <input type="checkbox"/> Stripped Matrix (S6)       | <input type="checkbox"/> 2 cm Muck (A10) (LRR B)       |
| <input type="checkbox"/> Black Histic (A3)                                | <input type="checkbox"/> Loamy Mucky Mineral (F1)   | <input type="checkbox"/> Reduced Vertic (F18)          |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                            | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   | <input type="checkbox"/> Red Parent Material (TF2)     |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)                   | <input type="checkbox"/> Depleted Matrix (F3)       | <input type="checkbox"/> Other (Explain in Remarks)    |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)                           | <input type="checkbox"/> Redox Dark Surface (F5)    |  |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)                | <input type="checkbox"/> Depleted Dark Surface (F7) |  |
| <input type="checkbox"/> Thick Dark Surface (A12)                         | <input type="checkbox"/> Redox Depressions (F8)     |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                         | <input type="checkbox"/> Vernal Pools (F9)          |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                         |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

|   |  |
|---|--|
| Restrictive Layer (if present):<br>Type: <u>hard pan clay</u><br>Depth (inches): <u>7</u> | Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Remarks:

**HYDROLOGY**

| Wetland Hydrology Indicators:                                      |  | Secondary Indicators (2 or more required)                          |
|--|--|--|
| Primary Indicators (minimum of one required, check all that apply) |  |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              | <input type="checkbox"/> Water Marks (B1) (Riverine)               |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            | <input type="checkbox"/> Sediment Deposits (B2) (Riverine)         |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   | <input type="checkbox"/> Drift Deposits (B3) (Riverine)            |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    | <input type="checkbox"/> Drainage Patterns (B10)                   |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2)               |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 | <input type="checkbox"/> Crayfish Burrows (C6)                     |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        | <input type="checkbox"/> Shallow Aquitard (D3)                     |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |

|  |                       |  |
|--|-----------------------|--|
| Field Observations:  |                       | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): _____ |  |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>   | Depth (inches): _____ |  |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>    | Depth (inches): _____ |  |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
**Aerial photos show area wetter closer to stream**

Remarks:  
**High clay content soils likely resulting in slight surface soil cracking. No other hydrology observed.**



**WETLAND DETERMINATION DATA FORM - Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/24/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 2  
 Investigator(s): Nate Norman Section, Township, Range: S6 T6N R1W Salt Lake  
 Landform (hillslope, terrace, etc.): valley bottom Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LLR-0 Lat: 41.282918° Long: -111.971315° Datum: NAD83  
 Soil Map Unit Name: Logan silty clay loam MWI classification: PEMIC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are 'Normal Circumstances' present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

|  |   |                                       |   |
|--|---|---------------------------------------|---|
| Hydrophytic Vegetation Present?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present?   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |                                       |   |
| Wetland Hydrology Present?   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |                                       |   |
| Remarks:<br>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable. |   |                                       |   |

**VEGETATION - Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                   | Absolute % Cover | Dominant Species?             | Indicator Status | Dominance Test worksheet:  |                              |
|---|------------------|-------------------------------|------------------|--|------------------------------|
| 1 _____   |                  |                               |                  | Number of Dominant Species That Are OBL, FACW, or FAC  | <u>0</u> (A)                 |
| 2 _____   |                  |                               |                  | Total Number of Dominant Species Across All Strata:  | <u>2</u> (B)                 |
| 3 _____   |                  |                               |                  | Percent of Dominant Species That Are OBL, FACW, or FAC:  | <u>0</u> (A/B)               |
| 4 _____   |                  |                               |                  | = Total Cover  |                              |
| Shrub/Strawb Stratum (Plot size: _____)           |                  |                               |                  | Prevalence Index worksheet:  |                              |
| 1 _____   |                  |                               |                  | Total % Cover of _____   | <u>10</u> B/A by _____       |
| 2 _____   |                  |                               |                  | OBL species _____  | x 1 = _____                  |
| 3 _____   |                  |                               |                  | FACW species _____   | x 2 = _____                  |
| 4 _____   |                  |                               |                  | FAC species _____  | x 3 = _____                  |
| 5 _____   |                  |                               |                  | FACU species <u>90</u>   | x 4 = <u>320</u>             |
|   |                  |                               |                  | UPL species _____  | x 5 = _____                  |
|   |                  |                               |                  | Column Totals:   | <u>90</u> (A) <u>320</u> (B) |
|   |                  |                               |                  | Prevalence Index = B/A = <u>4</u>  |                              |
| Herb Stratum (Plot size: _____)                   |                  |                               |                  | Hydrophytic Vegetation Indicators:   |                              |
| 1 <u>Schedonorus pratensis (meadow fescue)</u>    | <u>40</u>        | <u>Yes</u>                    | <u>FACU</u>      | --- Dominance Test is >90%   |                              |
| 2 <u>Cichorium intybus (chicory)</u>              | <u>20</u>        | <u>Yes</u>                    | <u>FACU</u>      | --- Prevalence Index is <3.0   |                              |
| 3 <u>Girardinia squarrosa (curlycup gumweed)</u>  | <u>10</u>        | <u>No</u>                     | <u>FACU</u>      | --- Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                              |
| 4 <u>Elymus trichyzoides (slender wheatgrass)</u> | <u>10</u>        | <u>No</u>                     | <u>FACU</u>      | --- Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |                              |
| 5 _____   |                  |                               |                  |  |                              |
| 6 _____   |                  |                               |                  |  |                              |
| 7 _____   |                  |                               |                  |  |                              |
| 8 _____   |                  |                               |                  |  |                              |
|   |                  |                               |                  | = Total Cover <u>90</u>  |                              |
| Woody Vine Stratum (Plot size: _____)             |                  |                               |                  | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.      |                              |
| 1 _____   |                  |                               |                  |  |                              |
| 2 _____   |                  |                               |                  |  |                              |
|   |                  |                               |                  | = Total Cover _____  |                              |
| % Bare Ground in Herb Stratum <u>20</u>           |                  | % Cover of Biotic Crust _____ |                  | Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>    |                              |

Remarks:

**SOIL**

Sampling Point SP 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix        |     | Redox Features |   |      |     | Texture | Remarks       |
|----------------|---------------|-----|----------------|---|------|-----|---------|---------------|
|                | Color (moist) | %   | Color (moist)  | % | Type | Loc |         |               |
| 0-2            | 10YR 2/1      | 100 |                |   |      |     | LOAM    | HIGH ORGANICS |
| 2-8            | 10YR 3/1      | 100 |                |   |      |     | LOAM    |               |
| 8-15           | 10YR 3/1      | 100 |                |   |      |     | GRAY LO |               |
| >15            | HARD          |     |                |   |      |     |         |               |

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>1</sup>Location: PL=Pore Linlog, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

|  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5) (LRR C)<br><input type="checkbox"/> 1 cm Muck (A9) (LRR D)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F5)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8)<br><input type="checkbox"/> Vernal Pools (F9) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C)<br><input type="checkbox"/> 2 cm Muck (A10) (LRR B)<br><input type="checkbox"/> Reduced Vertic (F18)<br><input type="checkbox"/> Red Parent Material (TF2)<br><input type="checkbox"/> Other (Explain in Remarks) |
|--|---|---|

Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):  
 Type: GRAVELY CLAY  
 Depth (inches): 15

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

Wetland Hydrology indicators:

|  |   |   |
|--|---|---|
| Primary Indicators (minimum of one required, check all that apply)   |   | Secondary Indicators (2 or more required)   |
| <input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1) (Nonriverine)<br><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)<br><input type="checkbox"/> Drill Deposits (B3) (Nonriverine)<br><input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Salt Crust (B11)<br><input type="checkbox"/> Biotic Crust (B12)<br><input type="checkbox"/> Aquatic Invertebrates (B13)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Oxidized Rhizosphere along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Water Marks (B1) (Riverine)<br><input type="checkbox"/> Sediment Deposits (B2) (Riverine)<br><input type="checkbox"/> Drift Deposits (B3) (Riverine)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Shallow Aquitard (D9)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

|   |  |
|---|--|
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                          | Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                            |  |
| Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ |  |

Describe Recorded Data (stream gauges, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site Harrisville Park Project City/County Harrisville/Weber Sampling Date 7/24/21  
 Applicant/Owner Scott Smoot State Utah Sampling Point SP 2  
 Investigator(s) Nate Norman Section, Township, Range S5 T8N R1W Salt Lake  
 Landform (hillslope, terrace, etc.): valley bottom Local relief (concave, convex, none): DOOR Slope (%): 0  
 Subregion (LRR): LLR-D Lat. 41.282918° Long: -111.971315° Datum: NA83  
 Soil Map Unit Name Logan silty clay loam NWI classification: PEM1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|   |   |   |
|---|---|---|
| Hydrophytic Vegetation Present?   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |   |
| Wetland Hydrology Present?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |   |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable.</b> |   |   |

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                    | Absolute % Cover | Dominant Species?             | Indicator Status | Dominance Test worksheet:   |
|--|------------------|-------------------------------|------------------|---|
| 1 _____  |                  |                               |                  | Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)                                 |
| 2 _____  |                  |                               |                  | Total Number of Dominant Species Across All Strata: <u>2</u> (B)                                    |
| 3 _____  |                  |                               |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)                              |
| 4 _____  |                  |                               |                  |   |
| = Total Cover                                      |                  |                               |                  |   |
| Sediment/Straw Stratum (Plot size: _____)          | Absolute % Cover | Dominant Species?             | Indicator Status | Prevalence Index worksheet:   |
| 1 _____  |                  |                               |                  | Total % Cover of: <u>16.8%</u> (C)  |
| 2 _____  |                  |                               |                  | OBL species _____ x 1 = _____   |
| 3 _____  |                  |                               |                  | FACW species _____ x 2 = _____  |
| 4 _____  |                  |                               |                  | FAC species _____ x 3 = _____   |
| 5 _____  |                  |                               |                  | FACU species <u>80</u> x 4 = <u>320</u>   |
| = Total Cover                                      |                  |                               |                  | LPL species _____ x 5 = _____   |
|  |                  |                               |                  | Column Totals: <u>80</u> (A) <u>320</u> (B)   |
|  |                  |                               |                  | Prevalence Index = B/A = <u>4</u>   |
| Herb Stratum (Plot size: _____)                    | Absolute % Cover | Dominant Species?             | Indicator Status | Hydrophytic Vegetation Indicators:  |
| 1. <u>Schedonorus pratensis (meadow fescue)</u>    | <u>40</u>        | <u>Yes</u>                    | <u>FACU</u>      | ___ Dominance Test is >50%  |
| 2. <u>Cichorium intybus (chicory)</u>              | <u>20</u>        | <u>Yes</u>                    | <u>FACU</u>      | ___ Prevalence Index is <3.0  |
| 3. <u>Grindella squarrosa (curlycup goldweed)</u>  | <u>10</u>        | <u>No</u>                     | <u>FACU</u>      | ___ Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)          |
| 4. <u>Elymus trachyacalus (slender wheatgrass)</u> | <u>10</u>        | <u>No</u>                     | <u>FACU</u>      | ___ Problematic Hydrophytic Vegetation* (Explain)   |
| 5 _____  |                  |                               |                  |   |
| 6 _____  |                  |                               |                  |   |
| 7 _____  |                  |                               |                  |   |
| 8 _____  |                  |                               |                  |   |
| = Total Cover                                      |                  |                               |                  |   |
| Woody Vine Stratum (Plot size: _____)              | Absolute % Cover | Dominant Species?             | Indicator Status | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.   |
| 1 _____  |                  |                               |                  |   |
| 2 _____  |                  |                               |                  |   |
| = Total Cover                                      |                  |                               |                  |   |
| % Bare Ground in Herb Stratum <u>20</u>            |                  | % Cover of Biotic Crust _____ |                  | Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Remarks:   |                  |                               |                  |   |

**SOIL**

Sampling Point SP 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks       |
|----------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------------|
|                | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |               |
| 0-2            | 10YR 2/1      | 100 |                |   |                   |                  | LOAM    | HIGH ORGANICS |
| 2-8            | 10YR 3/1      | 100 |                |   |                   |                  | LOAM    |               |
| 8-15           | 10YR 3/1      | 100 |                |   |                   |                  | GRAY LO |               |
| >15            | HARD          |     |                |   |                   |                  |         |               |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Linings, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

| Indicators for Problematic Hydric Soils <sup>3</sup> :     |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S8)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S8)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F5)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (P9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

|                            |  |
|----------------------------|--|
| Type: <u>GRAVELLY CLAY</u> | Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Depth (inches): <u>15</u>  |  |

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:

| Primary Indicators (minimum of one required, check all that apply) |  | Secondary Indicators (2 or more required)                          |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              | <input type="checkbox"/> Water Marks (B1) (Riverine)               |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Blocc Crust (B12)                             | <input type="checkbox"/> Sediment Deposits (B2) (Riverine)         |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   | <input type="checkbox"/> Drift Deposits (B3) (Riverine)            |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    | <input type="checkbox"/> Drainage Patterns (B10)                   |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2)               |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 | <input type="checkbox"/> Crayfish Burrows (C6)                     |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        | <input type="checkbox"/> Shallow Aquifers (D9)                     |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |

Field Observations:

|  |                       |  |
|--|-----------------------|--|
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): _____ | Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>   | Depth (inches): _____ |  |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>    | Depth (inches): _____ |  |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**WETLAND DETERMINATION DATA FORM - Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/24/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 3  
 Investigator(s): Nate Norman Section, Township, Range: S6 T6N R1W Salt Lake  
 Landform (hill/slope, terrace, etc.): Valley bottom Local relief (concave, convex, none): 0000 Slope (%): 0  
 Subregion (LRR): LLR-D Lat: 41.282975° Long: -111.871286° Datum: naed 83  
 Soil Map Unit Name: Logan silty clay loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No  (If no, explain in Remarks.)  
 Are Vegetation , Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are 'Normal Circumstances' present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

|   |  |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____                                      | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____   |  |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____   |  |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable.</b> |  |

**VEGETATION - Use scientific names of plants.**

| Inn. Stratum (Plot size: _____)                 | Absolute % Cover | Dominant Species?             | Indicator Status | Dominance Test worksheet:  |
|---|------------------|-------------------------------|------------------|--|
| 1 _____   |                  |                               |                  | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)                        |
| 2 _____   |                  |                               |                  | Total Number of Dominant Species Across All Strata: <u>1</u> (B)                           |
| 3 _____   |                  |                               |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)                   |
| 4 _____   |                  |                               |                  |  |
| = Total Cover                                   |                  |                               |                  |  |
| Bare/Strub Stratum (Plot size: _____)           | Absolute % Cover | Dominant Species?             | Indicator Status | Prevalence Index worksheet:  |
| 1 _____   |                  |                               |                  | Total % Cover of: <u>10.00%</u> by:  |
| 2 _____   |                  |                               |                  | OBL species <u>0</u> x 1 = <u>0</u>  |
| 3 _____   |                  |                               |                  | FACW species <u>10</u> x 2 = <u>20</u>   |
| 4 _____   |                  |                               |                  | FAC species <u>10</u> x 3 = <u>30</u>  |
| 5 _____   |                  |                               |                  | FACU species <u>10</u> x 4 = <u>40</u>   |
| = Total Cover                                   |                  |                               |                  | LPL species _____ x 5 = _____  |
|   |                  |                               |                  | Column Totals: <u>100</u> (A) <u>160</u> (B)   |
|   |                  |                               |                  | Prevalence Index = B/A = <u>1.6</u>  |
| Herb Stratum (Plot size: <u>8'</u> )            | Absolute % Cover | Dominant Species?             | Indicator Status | Hydrophytic Vegetation Indicators:   |
| 1 <u>Elychalis palustris (common spikerush)</u> | <u>80</u>        | <u>Yes</u>                    | <u>OBL</u>       | <input checked="" type="checkbox"/> Dominance Test is >90%                                 |
| 2 <u>Ammannia coccinea (friction)</u>           | <u>10</u>        | <u>No</u>                     | <u>FACW</u>      | <input checked="" type="checkbox"/> Prevalence Index is >3.0                               |
| 3 <u>Schoenoplectus pungens (three-square)</u>  | <u>10</u>        | <u>No</u>                     | <u>OBL</u>       | ___ Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet) |
| 4 <u>Chenopodium album (lambsquarters)</u>      | <u>10</u>        | <u>No</u>                     | <u>FACU</u>      | ___ Problematic Hydrophytic Vegetation* (Explain)  |
| 5 <u>Hordeum jubatum (tufted barley)</u>        | <u>5</u>         | <u>No</u>                     | <u>FAC</u>       |  |
| 6 <u>Ranunculus repens (creeping buttercup)</u> | <u>5</u>         | <u>No</u>                     | <u>FAC</u>       |  |
| 7 _____   |                  |                               |                  |  |
| 8 _____   |                  |                               |                  |  |
| = Total Cover                                   |                  |                               |                  |  |
| Woody Vine Stratum (Plot size: _____)           | Absolute % Cover | Dominant Species?             | Indicator Status | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____           |
| 1 _____   |                  |                               |                  |  |
| 2 _____   |                  |                               |                  |  |
| = Total Cover                                   |                  |                               |                  |  |
| % Bare Ground in Herb Stratum <u>0</u>          |                  | % Cover of Biotic Crust _____ |                  |  |
| Remarks:  |                  |                               |                  |  |

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/24/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 3  
 Investigator(s): Nate Norman Section, Township, Range: S6 T6N R1W Salt Lake  
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): LR-D Lat: 41.282975° Long: -111.971286° Datum: nad 83  
 Soil Map Unit Name: Logan silty clay loam NRM classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|   |  |  |   |
|---|--|--|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                   | Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable.</b> |  |  |   |

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                    | Absolute % Cover              | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  |
|--|-------------------------------|-------------------|------------------|---|
| 1  |                               |                   |                  |   |
| 2  |                               |                   |                  |   |
| 3  |                               |                   |                  |   |
| 4  |                               |                   |                  |   |
| = Total Cover                                      |                               |                   |                  | Total Number of Dominant Species Across All Strata: <u>1</u> (B)  |
| Bsapling/Shrub Stratum (Plot size: _____)          |                               |                   |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  |
| 1  |                               |                   |                  |   |
| 2  |                               |                   |                  |   |
| 3  |                               |                   |                  |   |
| 4  |                               |                   |                  |   |
| 5  |                               |                   |                  |   |
| = Total Cover                                      |                               |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____  |
|  |                               |                   |                  | OBL species <u>70</u> x 1 = <u>70</u>   |
|  |                               |                   |                  | FACW species <u>10</u> x 2 = <u>20</u>  |
|  |                               |                   |                  | FAC species <u>10</u> x 3 = <u>30</u>   |
|  |                               |                   |                  | FACU species <u>10</u> x 4 = <u>40</u>  |
|  |                               |                   |                  | UPL species _____ x 5 = _____   |
|  |                               |                   |                  | Column Totals: <u>100</u> (A) <u>160</u> (B)  |
|  |                               |                   |                  | Prevalence Index = B/A = <u>1.6</u>   |
| Herb Stratum (Plot size: <u>8'</u> )               |                               |                   |                  | Hydrophytic Vegetation Indicators:<br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input checked="" type="checkbox"/> Prevalence Index is >3.0<br><input type="checkbox"/> Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation* (Explain) |
| 1. <i>Eleocharis palustris</i> (common spikegrass) | 80                            | Yes               | OBL              |   |
| 2. <i>Agrostis gigantea</i> (redtop)               | 10                            | No                | FACW             |   |
| 3. <i>Schoenoplectus nigropus</i> (trifasciata)    | 10                            | No                | OBL              |   |
| 4. <i>Chenopodium album</i> (lambsquarters)        | 10                            | No                | FACU             |   |
| 5. <i>Hordeum jubatum</i> (foxtail barley)         | 5                             | No                | FAC              |   |
| 6. <i>Ranunculus repens</i> (creeping buttercup)   | 5                             | No                | FAC              |   |
| 7.   |                               |                   |                  |   |
| 8.   |                               |                   |                  |   |
| = Total Cover                                      |                               |                   |                  | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.   |
| Woody Vine Stratum (Plot size: _____)              |                               |                   |                  | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |
| 1.   |                               |                   |                  |   |
| 2.   |                               |                   |                  |   |
| = Total Cover                                      |                               |                   |                  |   |
| % Bare Ground in Herb Stratum <u>0</u>             | % Cover of Biotic Crust _____ |                   |                  |   |
| Remarks:   |                               |                   |                  |   |

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/24/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 3  
 Investigator(s): Nate Norman Section, Township, Range: S6 T6N R1W Salt Lake  
 Landform (hilllope, terrace, etc.): Valley bottom Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LLR-D Lat: 41.282975° Long: -111.971268° Datum: ned 83  
 Soil Map Unit Name: Logan silty clay loam NWI classification: PEM1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|   |   |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/><br>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/><br>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable.</b>   |   |

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                                      | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:  |  |
|--|------------------|-------------------|------------------|--|--|
| 1 _____  |                  |                   |                  | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  |  |
| 2 _____  |                  |                   |                  | Total Number of Dominant Species Across All Strata: <u>1</u> (B)   |  |
| 3 _____  |                  |                   |                  |  |  |
| 4 _____  |                  |                   |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)   |  |
| = Total Cover  |                  |                   |                  |  |  |
| <b>Shrub/Strawb Stratum (Plot size: _____)</b>                       |                  |                   |                  |  |  |
| 1 _____  |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiplier:<br>OBL species <u>70</u> x 1 = <u>70</u><br>FACW species <u>10</u> x 2 = <u>20</u><br>FAC species <u>10</u> x 3 = <u>30</u><br>FACU species <u>10</u> x 4 = <u>40</u><br>UPL species _____ x 5 = _____<br>Column Totals: <u>100</u> (A) <u>160</u> (B)<br>Prevalence Index = B/A = <u>1.6</u> |  |
| 2 _____  |                  |                   |                  |  |  |
| 3 _____  |                  |                   |                  |  |  |
| 4 _____  |                  |                   |                  |  |  |
| 5 _____  |                  |                   |                  |  |  |
| = Total Cover  |                  |                   |                  | Hydrophytic Vegetation Indicators:<br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input checked="" type="checkbox"/> Prevalence Index is >3.0<br>_____ Morphological Adaptations? (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation? (Explain)  |  |
| <b>Herb Stratum (Plot size: <u>8'</u>)</b>                           |                  |                   |                  |  |  |
| 1. <u>Elyocharia palustris (common spikegrass)</u>                   | <u>80</u>        | <u>Yes</u>        | <u>OBL</u>       |  |  |
| 2. <u>Acrosetis oligostachya (traction)</u>                          | <u>10</u>        | <u>No</u>         | <u>FACW</u>      |  |  |
| 3. <u>Schoenoplectus nuncius (limesquare)</u>                        | <u>10</u>        | <u>No</u>         | <u>OBL</u>       |  |  |
| 4. <u>Chenopodium album (lambsquarters)</u>                          | <u>10</u>        | <u>No</u>         | <u>FACU</u>      |  |  |
| 5. <u>Hordeum jubatum (foxtail barley)</u>                           | <u>5</u>         | <u>No</u>         | <u>FAC</u>       |  |  |
| 6. <u>Ranunculus repens (creeping buttercup)</u>                     | <u>5</u>         | <u>No</u>         | <u>FAC</u>       |  |  |
| 7. _____   |                  |                   |                  |  |  |
| 8. _____   |                  |                   |                  |  |  |
| = Total Cover  |                  |                   |                  | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.<br><br>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |  |
| <b>Woody Vine Stratum (Plot size: _____)</b>                         |                  |                   |                  |  |  |
| 1 _____  |                  |                   |                  |  |  |
| 2 _____  |                  |                   |                  |  |  |
| = Total Cover  |                  |                   |                  |  |  |
| % Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____ |                  |                   |                  |  |  |
| Remarks:   |                  |                   |                  |  |  |

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/26/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 4  
 Investigator(s): Nate Norman Section, Township Range: S6 T6N R1W Salt Lake  
 Landform (hill/slope, terrace, etc.): Valley bottom Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): LLR-D Lat: 41.281651° Long: -111.971187° Datum: nad 83  
 Soil Map Unit Name: Logan silty clay loam NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  Soil  or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  Soil  or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|   |   |  |   |
|---|---|--|---|
| Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                   | Hydroic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable.</b> |   |  |   |

**VEGETATION – Use scientific names of plants.**

| Area Stratum (Plot size: _____)                   | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  |
|---|------------------|-------------------|------------------|--|
| 1 _____   |                  |                   |                  | Total Number of Dominant Species Across All Strata: _____ (B)<br>Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)   |
| 2 _____   |                  |                   |                  |  |
| 3 _____   |                  |                   |                  |  |
| 4 _____   |                  |                   |                  |  |
| = Total Cover                                     |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by:<br>OBL species _____ x 1 = _____<br>FACW species _____ x 2 = <u>20</u><br>FAC species _____ x 3 = <u>30</u><br>FACU species _____ x 4 = <u>40</u><br>UPL species _____ x 5 = _____<br>Column Totals: _____ (A) _____ (B)<br>Prevalence Index = B/A = <u>1.6</u>  |
| 1 _____   |                  |                   |                  |  |
| 2 _____   |                  |                   |                  |  |
| 3 _____   |                  |                   |                  |  |
| 4 _____   |                  |                   |                  |  |
| = Total Cover                                     |                  |                   |                  | Hydrophytic Vegetation Indicators:<br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input type="checkbox"/> Prevalence Index is <3.0'<br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.<br><br>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 1 <u>Tritolium fragiferum (strawberry clover)</u> | <u>80</u>        | <u>Yes</u>        | <u>FAC</u>       |  |
| 2 <u>Schedonoma pratensis (meadow fescue)</u>     | <u>15</u>        | <u>No</u>         | <u>FACU</u>      |  |
| 3 <u>Cynodon dactylon (Bermudagrass)</u>          | <u>15</u>        | <u>No</u>         | <u>FACU</u>      |  |
| 4 <u>Hordeum jubatum (foxtail barley)</u>         | <u>2</u>         | <u>No</u>         | <u>FAC</u>       |  |
| 5 _____   |                  |                   |                  |  |
| = Total Cover                                     |                  |                   |                  | % Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____   |
| 1 _____   |                  |                   |                  |  |
| 2 _____   |                  |                   |                  |  |
| = Total Cover                                     |                  |                   |                  | Remarks:   |
|   |                  |                   |                  |  |

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/24/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 5  
 Investigator(s): Nate Norman Section, Township, Range: S6 T9N R1W Salt Lake  
 Landform (hillslope, terrace, etc.): valley bottom Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LLR-D Lat: 41.281730° Long: -111.971024° Datum: NAD83  
 Soil Map Unit Name: Logan silty clay loam NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No  (If no, explain in Remarks.)  
 Are Vegetation  Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|   |  |   |
|---|--|---|
| Hydrophytic Vegetation Present?   | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area<br>within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present?  | Yes <input checked="" type="checkbox"/> No _____ |   |
| Wetland Hydrology Present?  | Yes <input checked="" type="checkbox"/> No _____ |   |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable.</b> |  |   |

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                     | Absolute % Cover | Dominant Species?              | Indicator Status | Benthic Test worksheet:   |
|---|------------------|--------------------------------|------------------|---|
| 1. <u>Elaeagnus angustifolia (Russian olive)</u>    | <u>5</u>         | <u>Yes</u>                     | <u>FAC</u>       | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)   |
| 2. _____  | _____            | _____                          | _____            | Total Number of Dominant Species Across All Strata: <u>3</u> (B)  |
| 3. _____  | _____            | _____                          | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)   |
| 4. _____  | _____            | _____                          | _____            | Prevalence Index worksheet:<br>Total % Cover of _____<br>OBL species <u>35</u> x 1 = <u>35</u><br>FACW species _____ x 2 = _____<br>FAC species <u>35</u> x 3 = <u>105</u><br>FACU species <u>20</u> x 4 = <u>80</u><br>UPL species _____ x 5 = _____<br>Column Totals: <u>80</u> (A) <u>220</u> (B)<br><br>Prevalence Index = B/A = <u>2.4</u> |
| = Total Cover                                       |                  |                                |                  |   |
| Shrub/Scrub Stratum (Plot size: _____)              |                  |                                |                  |   |
| 1. _____  | _____            | _____                          | _____            |   |
| 2. _____  | _____            | _____                          | _____            |   |
| 3. _____  | _____            | _____                          | _____            |   |
| 4. _____  | _____            | _____                          | _____            |   |
| 5. _____  | _____            | _____                          | _____            |   |
| = Total Cover                                       |                  |                                |                  |   |
| Herb Stratum (Plot size: <u>6'</u> )                |                  |                                |                  |   |
| 1. <u>Trifolium fragillimum (strawberry clover)</u> | <u>25</u>        | <u>Yes</u>                     | <u>FAC</u>       | Hydrophytic Vegetation Indicators:<br><input checked="" type="checkbox"/> Dominance Test is >90%<br><input checked="" type="checkbox"/> Prevalence Index is <3.0*<br>_____ Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation* (Explain)                        |
| 2. <u>Typha latifolia (Broadleaf cattail)</u>       | <u>25</u>        | <u>Yes</u>                     | <u>FACU</u>      |   |
| 3. <u>Scheuchzeria palustris (fluggewurz)</u>       | <u>15</u>        | <u>No</u>                      | <u>OBL</u>       |   |
| 4. <u>Carex nebrascensis (Nebraska sedge)</u>       | <u>15</u>        | <u>No</u>                      | <u>OBL</u>       |   |
| 5. <u>Verbena hastata (swamp verbena)</u>           | <u>5</u>         | <u>No</u>                      | <u>FAC</u>       |   |
| 6. <u>Polygonum amphibium (water knotweed)</u>      | <u>5</u>         | <u>No</u>                      | <u>OBL</u>       |   |
| 7. _____  | _____            | _____                          | _____            |   |
| 8. _____  | _____            | _____                          | _____            |   |
| <u>80</u> = Total Cover                             |                  |                                |                  |   |
| Woody Vine Stratum (Plot size: _____)               |                  |                                |                  |   |
| 1. _____  | _____            | _____                          | _____            | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.<br><br>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____   |
| 2. _____  | _____            | _____                          | _____            |   |
| = Total Cover                                       |                  |                                |                  |   |
| % Bare Ground in Herb Stratum: <u>10</u>            |                  | % Cover of Biotic Crust: _____ |                  |   |
| Remarks:<br><b>BARE GROUND INCLUDES OPEN WATER.</b> |                  |                                |                  |   |

**SOIL**

Sampling Point SP 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix        |     | Redox Features |   |      |                  | Texture | Remarks |
|----------------|---------------|-----|----------------|---|------|------------------|---------|---------|
|                | Color (moist) | %   | Color (moist)  | % | Type | Loc <sup>1</sup> |         |         |
| 0-18           | 10YR 6/1      | 100 |                |   |      |                  | St Lo   |         |
|                |               |     |                |   |      |                  |         |         |
|                |               |     |                |   |      |                  |         |         |
|                |               |     |                |   |      |                  |         |         |
|                |               |     |                |   |      |                  |         |         |
|                |               |     |                |   |      |                  |         |         |

<sup>1</sup>Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. <sup>2</sup>Location: PL-Pore Lining, M-Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                | <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            | <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        | <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input checked="" type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F5)         |   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |   |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |   |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type \_\_\_\_\_  
Depth (inches) \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

Secondary Indicators (2 or more required)

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Surface Water (A1)                                   | <input type="checkbox"/> Salt Crust (B11)                              | <input type="checkbox"/> Water Marks (B1) (Riverine)               |
| <input checked="" type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            | <input type="checkbox"/> Sediment Deposits (B2) (Riverine)         |
| <input checked="" type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   | <input type="checkbox"/> Drift Deposits (B3) (Riverine)            |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)                       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    | <input type="checkbox"/> Drainage Patterns (B10)                   |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)                 | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input checked="" type="checkbox"/> Dry-Season Water Table (C2)    |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)                    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 | <input type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Surface Soil Cracks (B6)                             | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        | <input type="checkbox"/> Shallow Aquifer (D3)                      |
| <input type="checkbox"/> Water-Stained Leaves (B9)                            | <input type="checkbox"/> Other (Explain in Remarks)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |

Field Observations:

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): 3"  
 Saturation Present? Yes  No  Depth (inches): 2"  
 (includes capillary fringe)

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Harrisville Park Project City/County: Harrisville/Weber Sampling Date: 7/26/21  
 Applicant/Owner: Scott Smoot State: Utah Sampling Point: SP 6  
 Investigator(s): Nate Norman Section, Township, Range: S6 T8N R1W Salt Lake  
 Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LLR-D Lat: 41.282331° Long: -111.972679° Datum: nad 83  
 Soil Map Unit Name: Logan silty clay loam NWI classification: PEM1F

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|   |   |  |
|---|---|--|
| Hydrophytic Vegetation Present?   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area<br>within a Wetland? |
| Hydric Soil Present?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |
| Wetland Hydrology Present?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |
| Remarks:<br><b>Drought conditions present. Area is currently being grazed and not all vegetation is identifiable. Area is marginal and does not meet vegetation criteria but not soils and hydrology.</b> |   |  |

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____)                     | Absolute % Cover              | Dominant Species? | Indicator Status | Dominance Test worksheet:  |
|---|-------------------------------|-------------------|------------------|--|
| 1 _____   |                               |                   |                  | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  |
| 2 _____   |                               |                   |                  | Total Number of Dominant Species Across All Strata: <u>1</u> (B)   |
| 3 _____   |                               |                   |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)   |
| 4 _____   |                               |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by:<br>OBL species <u>25</u> x 1 = <u>25</u><br>FACW species _____ x 2 = _____<br>FAC species <u>20</u> x 3 = <u>60</u><br>FACU species <u>5</u> x 4 = <u>20</u><br>UPL species _____ x 5 = _____<br>Column Totals: <u>100</u> (A) <u>255</u> (B)<br><br>Prevalence Index = B/A = <u>2.55</u>  |
| = Total Cover                                       |                               |                   |                  |  |
| Shrub/Strawb Stratum (Plot size: _____)             |                               |                   |                  |  |
| 1 _____   |                               |                   |                  |  |
| 2 _____   |                               |                   |                  |  |
| 3 _____   |                               |                   |                  |  |
| 4 _____   |                               |                   |                  |  |
| 5 _____   |                               |                   |                  |  |
| = Total Cover                                       |                               |                   |                  |  |
| Herb Stratum (Plot size: <u>6'</u> )                |                               |                   |                  | Hydrophytic Vegetation Indicators:<br><input checked="" type="checkbox"/> Dominance Test is >90%<br><input checked="" type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.<br><br>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 1. <u>Trifolium fragillans (strawberry clover)</u>  | <u>50</u>                     | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. <u>Hordium jubatum (foxtail barley)</u>          | <u>15</u>                     | <u>No</u>         | <u>FAC</u>       |  |
| 3. <u>Carex nataracensis (Nehalemia sedes)</u>      | <u>15</u>                     | <u>No</u>         | <u>OBL</u>       |  |
| 4. <u>Schoenoplectus pungens (three-square)</u>     | <u>10</u>                     | <u>No</u>         | <u>OBL</u>       |  |
| 5. <u>Schedonorus pratensis (meadow fescue)</u>     | <u>5</u>                      | <u>No</u>         | <u>FACU</u>      |  |
| 6. <u>Plantago lanceolata (narrowleaf plantain)</u> | <u>5</u>                      | <u>No</u>         | <u>FAC</u>       |  |
| 7. _____  |                               |                   |                  |  |
| 8. _____  |                               |                   |                  |  |
| = Total Cover                                       |                               |                   |                  |  |
| Woody Vine Stratum (Plot size: _____)               |                               |                   |                  |  |
| 1. _____  |                               |                   |                  |  |
| 2. _____  |                               |                   |                  |  |
| = Total Cover                                       |                               |                   |                  |  |
| % Bare Ground in Herb Stratum <u>5</u>              | % Cover of Biotic Crust _____ |                   |                  |  |

Remarks:

**SOIL**

Sampling Point SP 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix        |    | Redox Features |   |                   |                  | Texture | Remarks |
|----------------|---------------|----|----------------|---|-------------------|------------------|---------|---------|
|                | Color (moist) | %  | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-6            | 10YR 4/3      | 98 | 10YR 6/2       | 2 | D                 | M                | CLLO    |         |
| 6-18           | 10YR 2/1      | 98 | 10YR 6/2       | 2 | D                 | M                | CLLO    |         |
|                |               |    |                |   |                   |                  |         |         |
|                |               |    |                |   |                   |                  |         |         |
|                |               |    |                |   |                   |                  |         |         |

<sup>1</sup>Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. <sup>2</sup>Location: PL-Pore Lining, M-Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

|  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5) (LRR C)<br><input type="checkbox"/> 1 cm Muck (A9) (LRR D)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (B3)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F5)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8)<br><input type="checkbox"/> Vernal Pools (F9) | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b><br><input type="checkbox"/> 1 cm Muck (A9) (LRR C)<br><input type="checkbox"/> 2 cm Muck (A10) (LRR B)<br><input type="checkbox"/> Reduced Vertic (F18)<br><input type="checkbox"/> Red Parent Material (TF2)<br><input type="checkbox"/> Other (Explain in Remarks) |
|--|---|--|

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type \_\_\_\_\_  
 Depth (inches) \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonvertic)
- Sediment Deposits (B2) (Nonvertic)
- Drift Deposits (B3) (Nonvertic)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Vertic)
- Sediment Deposits (B2) (Vertic)
- Drift Deposits (B3) (Vertic)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquifer (D6)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

---

## Appendix F - Property Owner(s) Access Statement







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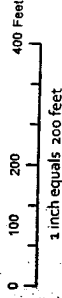
I, Scott Smoot (Property Owner), hereby give the Corps personnel the right to enter the property and collect samples during normal business hours.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Harrisville Park  
Harrisville, Weber County, Utah  
Steam Design Map**

**LEGEND**

-  Survey Area
-  Existing Open Water Pond and Stream
-  Proposed Stream Channel
-  Residential Site Design
-  Open Space Concept Design
-  Curb and Gutter Design

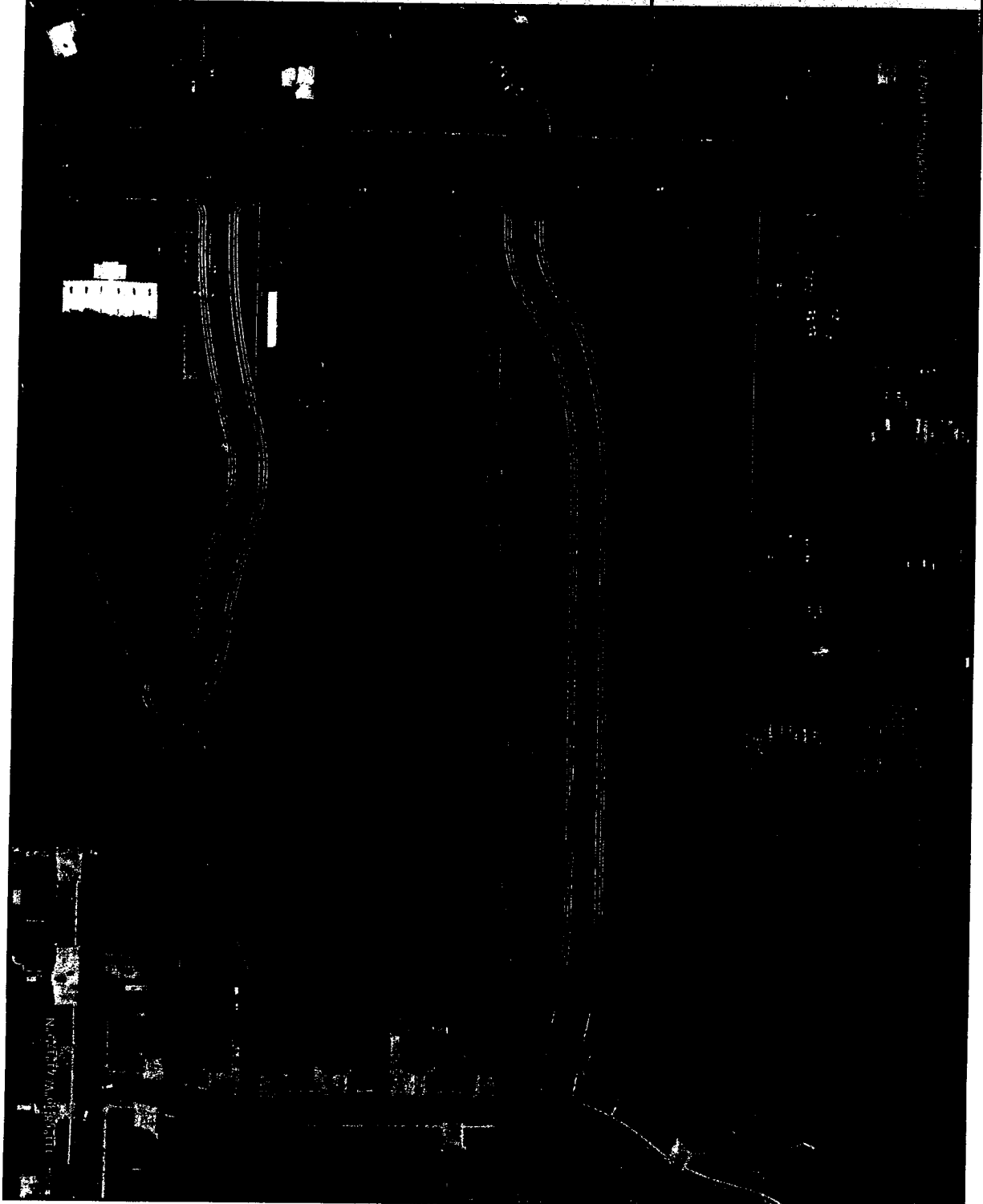


**Existing Stream Characteristics:**

*Linear Feet - approx. 1,412 lf*  
*Average Width - approx. 10 ft.*

**Future Stream Characteristics:**

*Linear Feet - approx. 1,940 lf*  
*Average Width - approx. 10 ft.*



**COVER PAGE**

**Must Accompany All Project Reports  
Submitted to the Utah SHPO**



Report Title: A Cultural Resources Inventory for the 1300 North Washington Boulevard 404 Permit Project in Weber County, Utah.

UDSH Project Number: U22HP0139

Org. Project Number: U-0664

Report Date: March 4, 2022

County(ies): Weber

Report Author(s): Wendy Simmons Johnson

Principal Investigator Wendy Simmons Johnson

Record Search Date(s): October 16, 2021

Field Supervisor(s): Wendy Simmons Johnson

Intensive Acres Surveyed (<15m intervals): 14.6

Recon/Intuitive Acres Surveyed (<15m intervals): 0

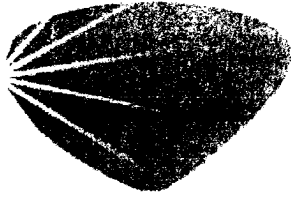
USGS 7.5' Series Map Reference(s): Harrisville, Utah (1998).

| Sites Reported                                  | Count | Smithsonian Trinomials |
|---|-------|------------------------|
| Revisits (no updated site forms)                | 0     |                        |
| Updates (updated site forms attached)           | 0     |                        |
| New recordings (site forms attached)            | 0     |                        |
| Total Count of Archaeological Sites in APE      | 0     |                        |
| Historic Structures (structures forms Attached) | 0     |                        |
| Total National Register Eligible Sites          | 0     |                        |

\*Please list all site numbers per category. Number strings are acceptable (e.g. "42TO1-13; 42TO15"). Cells should expand to accommodate extensive lists.

**Checklist of Required Items for Submittal to SHPO**

- "Born Digital" Report in a PDF/A format
  - SHPO Cover Sheet
  - File Name is the UDSH Project Number with no hyphens or landowner suffixes
- "Born Digital" Site forms in PDF/A format
  - UASF with embedded maps and photos
  - File name is Smithsonian Trinomial without leading zeros (e.g. 42TO13 not 42TO00013)
  - Photo requirements (including size and quality)
- Archaeological Site Tabular Data
  - Single spreadsheet for each project
  - Follows UTSHPO template (info here: <https://goo.gl/7SLMqi>)
- GIS data
  - Zipped polygon shapefile or geodatabase of survey (if different from APE) or other activity area with required field names and variable intensity denoted
  - Zipped polygon shapefile or geodatabase of site boundaries with a the required field name



# COMMONWEALTH

HERITAGE GROUP

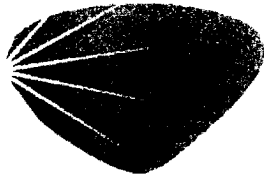
## 1300 NORTH WASHINGTON BOULEVARD 404 PERMIT PROJECT

WEBER COUNTY, UTAH

PROJECT NUMBER: U22HP0139  
US ARMY CORPS OF ENGINEERS

MARCH 4, 2022





**COMMONWEALTH**  
H E R I T A G E G R O U P

**A Cultural Resources Inventory for the 1300 North Washington  
Boulevard 404 Permit Project, Weber County, Utah**

**Prepared for**  
**BIO-WEST, INC.**  
**1063 WEST 1400 NORTH**  
**LOGAN, UT 84321**

**Prepared by**  
**COMMONWEALTH HERITAGE GROUP, INC.**  
**3670 QUINCY AVE, STE. 203**  
**OGDEN, UTAH 84403**

**Wendy Simmons Johnson, M.A., RPA, Regional Director**

**U-0664**

**March 4, 2022**

## ABSTRACT

In October 2021, Bio-West of Logan, Utah requested that Commonwealth Heritage Group, Inc. (Commonwealth) conduct a cultural resources inventory for the proposed 1300 North Washington Boulevard 404 Permit Project in Weber County, Utah. The study area consists of approximately 14.6 acres located in Section 5 T7N R2W on the USGS 7.5' Quadrangle Harrisville, Utah (1998). Because this project would affect waters of the United States, this project must meet requirements of Section 404 of the Clean Water Act. The applicant is seeking a permit from the U.S. Army Corps of Engineers (USACE), Sacramento District. The purpose of this inventory is to identify, record, and evaluate cultural resources within the study area for their eligibility for listing in the National Register of Historic Places (NRHP) in accordance with the Sacramento District's October 28, 2020 *Guidelines for Compliance with Section 106 of the National Historic Preservation Act*, as amended.

One historic isolated occurrence of movable farming equipment was located during the inventory of the study area. This was recommended Not Eligible to the NRHP. As such, Commonwealth recommends that there will be **No Adverse Effect** to significant historic properties. This investigation was conducted with techniques that are considered adequate for evaluating cultural resources that are available for visual inspection on the ground surface and could be adversely impacted by the project. However, there is the possibility of subsurface cultural deposits within the study area. Should such resources be discovered during construction of the project, a report should be made immediately to the USACE Regulatory Office located in Bountiful, Utah (801-295-8380).



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### APPENDIX A: VITA

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## **PROJECT UNDERTAKING**

In October 2021, Bio-West of Logan, Utah requested that Commonwealth Heritage Group, Inc. (Commonwealth) conduct a cultural resources inventory for the proposed 1300 North Washington Boulevard 404 Permit Project in Weber County, Utah. The study area consists of approximately 14.6 acres (wetlands plus a 100 foot buffer) located in Section 5 T7N R2W on the USGS 7.5' Quadrangle North Ogden, Utah (1998). Because this project would affect waters of the United States, this project must meet requirements of Section 404 of the Clean Water Act. The applicant is seeking a permit from the U.S. Army Corps of Engineers (USACE), Sacramento District. The purpose of this inventory is to identify, record, and evaluate cultural resources within the study area for their eligibility for listing in the National Register of Historic Places (NRHP) in accordance with the Sacramento District's October 28, 2020 *Guidelines for Compliance with Section 106 of the National Historic Preservation Act*, as amended.

## **PROJECT DESCRIPTION**

The 1300 North Washington Boulevard project is a new residential and park development located west of Washington Boulevard in Harrisville, Utah. The project includes the construction of the Harrisville Community Park (Park), 217 residential units, and two access roads. The roads will provide access to the Park and private residential lots. The 217 residential units will be multifamily condominium or townhome buildings constructed on fill pads or on slab on grade with no basements. The maximum excavation would be 8 to 10 feet for sewer or other water lines. The Park will include two youth soccer fields, walking paths, a bowery, parking lot, and playground area. Standard heavy equipment will be used for the work such as backhoes or excavators, bulldozers, and dump trucks.

## **ENVIRONMENT**

The project is located along Washington Boulevard in Harrisville, Weber County, Utah. The study area, situated in the northern Wasatch Front Valleys, is fairly flat at about 4,320 feet above mean sea level. The project area has been impacted by over 100 years of agricultural activities and the proximity to the heavily used road, Washington Boulevard. The nearest water source is an unnamed open stream located within the study area. The stream measures about 11 feet wide and flows southwesterly to where it meets with the Fourmile Creek (about 1.1 miles southwest of the study area). Soils are a dark brown silty loam form with heavy vegetation. Vegetation includes wheat grass, saltgrass, meadow fescue, Kentucky bluegrass; and in wetland areas, Hardstem Bulrush, broadleaf cattails, wiregrass, clustered field sedge, foxtail barley and Russian olive trees.

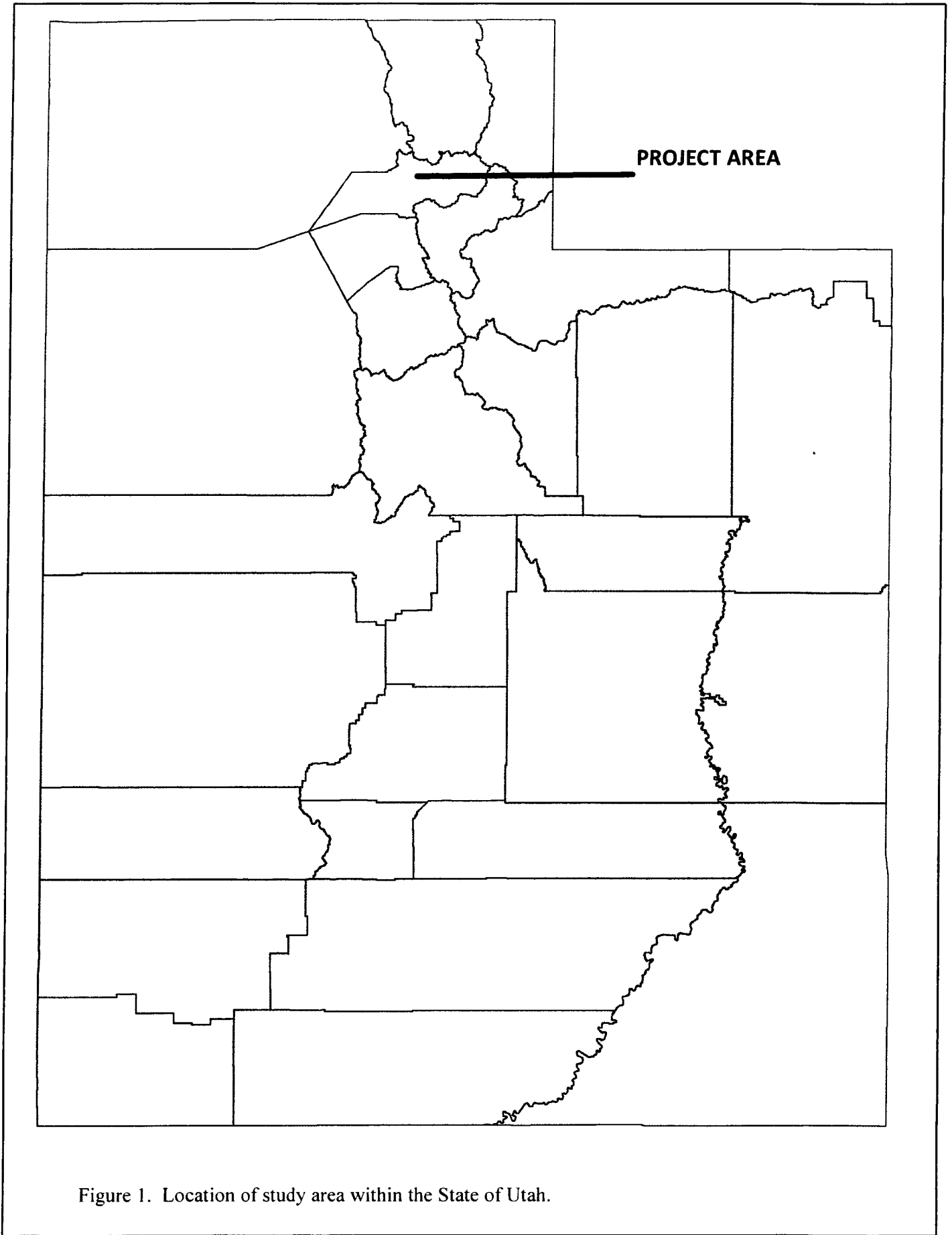


Figure 1. Location of study area within the State of Utah.

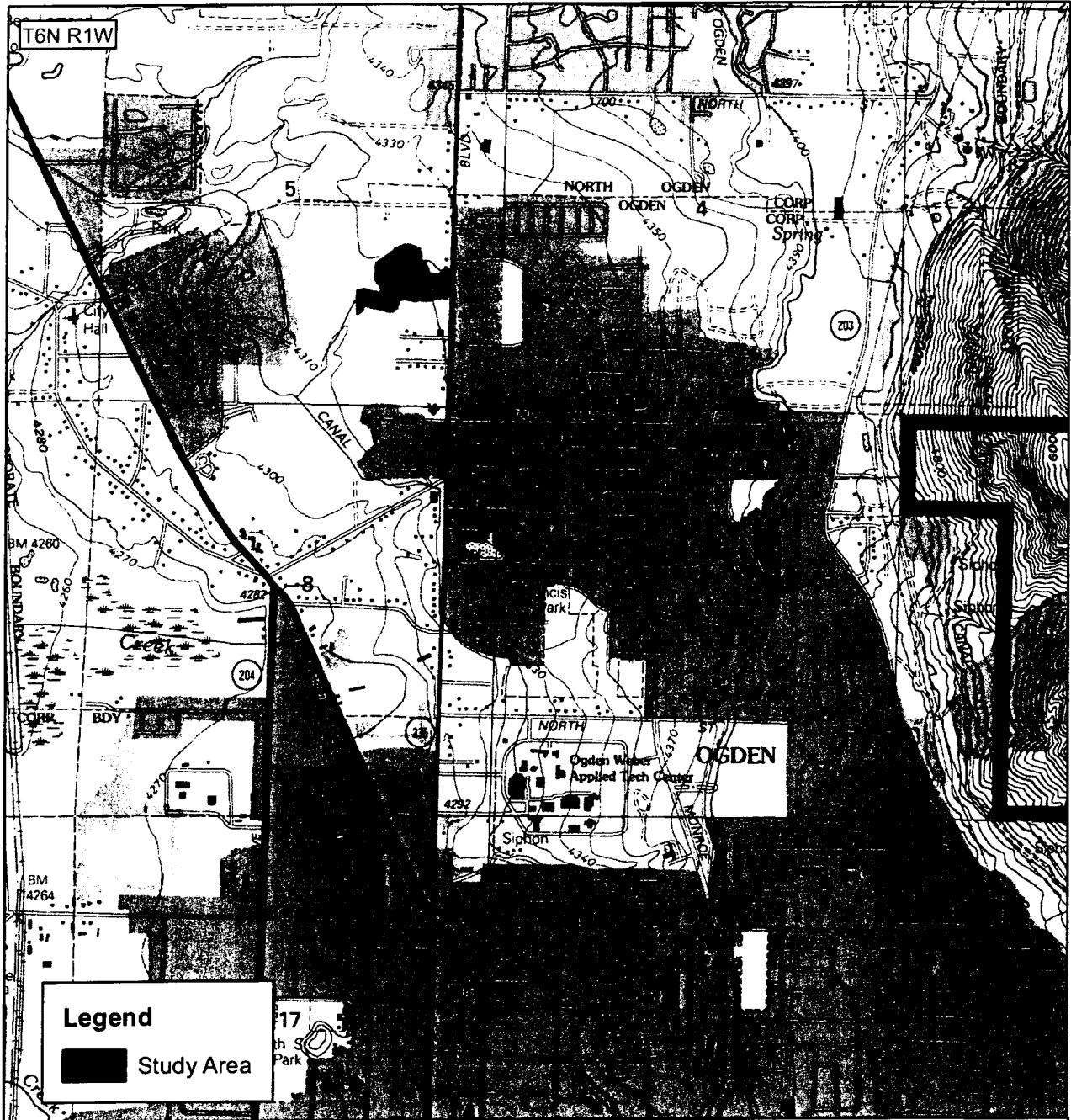


Figure 2. Location of the 1300 North Washington Boulevard 404 Permit Study Area. Taken from the USGS 7.5' Quadrangle North Ogden, UT (1998).

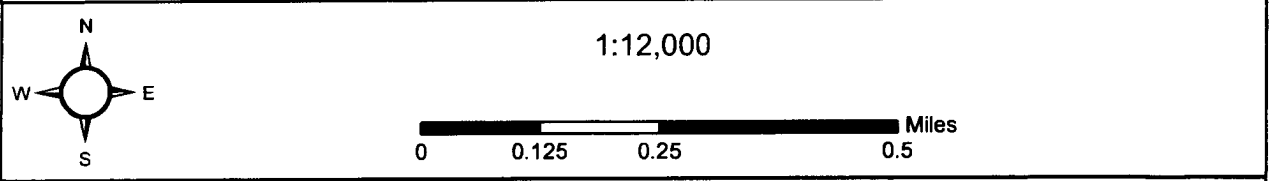
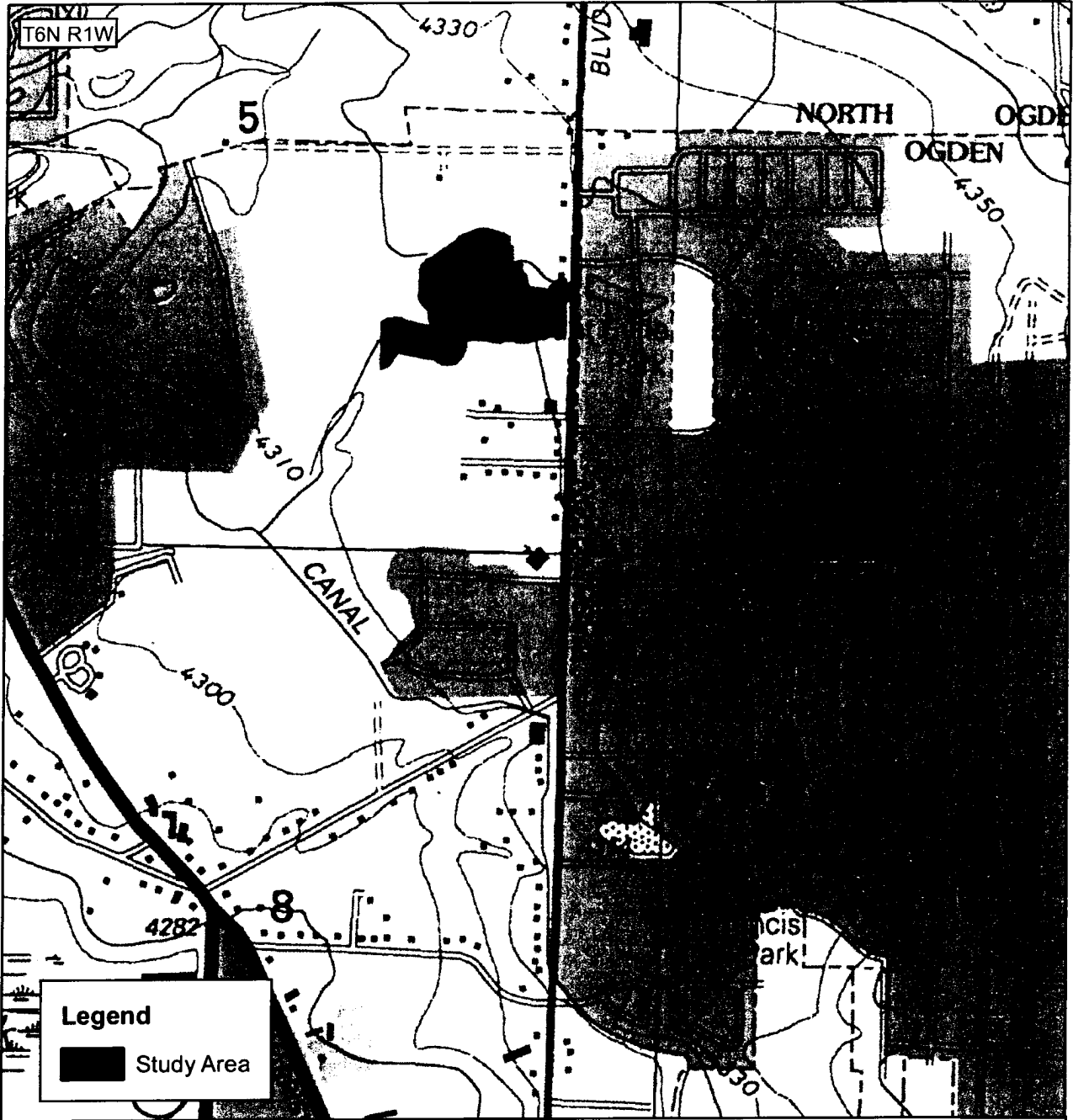


Figure 3. Close-up of the 1300 North Washington Boulevard 404 Permit Study Area. Taken from the USGS 7.5' Quadrangle North Ogden, UT (1998).

## LITERATURE REVIEW

Prior to conducting fieldwork, Deb Miller, Records Specialist with the Utah State Historic Preservation Office (SHPO), conducted a Geographical Information Systems file search on October 16, 2021. Four cultural resource projects and no sites were identified within one-half mile of the current study area. Following is Table 1 describing these results.

| <b>Report #</b> | <b>Company</b>    | <b>Project</b>                                      | <b>Author/Date</b>          |
|-----------------|-------------------|---|-----------------------------|
| U87CN0615       | Centennial        | AT&T Fiber Optics Facilities in Utah                | Tucker, Gordon 1987         |
| U15UJ0699       | USU Arch Services | SAL Otto Berger Communication Facility Project      | Blong, John 2015            |
| U15SJ0723       | Sagebrush         | Spring Meadows Subdivision                          | Simmons Johnson, Wendy 2015 |
| U17HY1101       | Certus            | Larsen Lane North Harrisville Rd to Washington Blvd | Ellis, Sheri Murray 2017    |

General Land Office (GLO) Records were also reviewed prior to fieldwork. No cultural features were noted on the GLO Plat map in the study area. The NRHP was also consulted prior to the commencement of fieldwork for the current study area and no NRHP sites were listed within one mile of this area.

## FIELD METHODOLOGY

The portions of the study area that were walkable were inventoried by Wendy Simmons Johnson on October 20, 2021, under the Utah Public Lands Policy Coordinating Office Permit No. 308. Ms. Simmons Johnson, who holds a M.A. in Anthropology/Archaeology, is a member of the Register of Professional Archaeologist and meets the Secretary of the Interior's Standards for Professional Qualifications for Archaeology (48FR 44738-44739). Ms. Simmons Johnson is a Principal Investigator for Commonwealth. She has worked in archaeological compliance in the Intermountain West for over 20 years and has worked on numerous cultural resources assessments for USACE permit applications since 2000 (Appendix A).

The inventory area was subject to uniform field methodology and was inventoried in parallel transects spaced no more than 15 meters (50 feet) apart where possible in the dense vegetation. The *Archaeological Compliance Guidance* produced by the Utah SHPO indicates that a transect width of 15 meters (50 feet) is the "commonly accepted transect standard in Utah" (Utah SHPO 2016:14). The SHPO guidance document also states, "Given Utah's generally high ground visibility, it is not expected that any inventory would use shovel probes to identify archaeological sites" (Utah SHPO 2016:14). Little soil development has taken place in this area, and it is expected that any cultural presence would be visible on the ground surface, since the impacts would have led to upheaval and mixing of materials. For these reasons, no testing was conducted for cultural deposits beneath the ground surface within the study area. The USACE typically defers to the SHPO guidance standards for cultural resources inventory areas and

methods in Utah. These standards are compliant with the Sacramento District's March 24, 2014, *Guidelines for Compliance with Section 106 of the National Historic Preservation Act*.

## FINDINGS

One isolated occurrence was noted in the study area. This consists of several pieces of historic farming equipment. The equipment is fragmentary and easily movable. Due to the fragmentary nature, it is unclear what these were used for; however, one looks like it may have been a wagon bed for hauling hay or other materials. The isolate is located at 478765 mE 4570566 mN. Isolated occurrences are generally considered not eligible to the NRHP. Because the equipment was moved here and can easily be moved again, it does not qualify for the NRHP under any Criteria.

Two outbuildings were also noted in the study area that, based on historic aerials and maps, appear to have been constructed between 1980 and 1985. These are, therefore, not considered historic.

## RECOMMENDATION OF EFFECT

In October 2021, Bio-West of Logan, Utah requested that Commonwealth conduct a cultural resources inventory for the proposed 1300 North Washington Boulevard 404 Permit Project in Weber County, Utah. Because this project would affect waters of the United States, this project must meet requirements of Section 404 of the Clean Water Act. The applicant is seeking a permit from the USACE, Sacramento District. The purpose of this inventory is to identify, record, and evaluate cultural resources within the study area for their eligibility for listing in the NRHP in accordance with the Sacramento District's October 28, 2020 *Guidelines for Compliance with Section 106 of the National Historic Preservation Act*, as amended.

One historic isolated occurrence of movable farming equipment was located during this inventory. This was recommended Not Eligible to the NRHP. As such, Commonwealth recommends that there will be **No Adverse Effect** to significant historic properties. This investigation was conducted with techniques that are considered adequate for evaluating cultural resources that are available for visual inspection on the ground surface and could be adversely impacted by the project. However, there is the possibility of subsurface cultural deposits within the study area. Should such resources be discovered during the project construction, a report should be made immediately to the USACE Regulatory Office located in Bountiful, Utah (801-295-8380).

**REFERENCE CITED**

U.S. Army Corps of Engineers

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Utah State Historic Preservation Office (SHPO)

2016 State of Utah Archaeological Compliance Guidance. Utah State Historic preservation Office, Utah Division of State History. Access online: 11 September < [https://heritage.utah.gov/wp-content/uploads/Arch\\_Compliance\\_Guide\\_March2016.pdf?x15791](https://heritage.utah.gov/wp-content/uploads/Arch_Compliance_Guide_March2016.pdf?x15791) >



**APPENDIX A**

**VITA**



**Wendy Simmons Johnson, RPA**  
**Principal Investigator**

3670 Quincy Avenue, Suite 203  
Ogden Utah 84403  
(801) 394-0013  
wjohnson@chg-inc.com

***Education***

|      |                          |                         |      |
|------|--------------------------|-------------------------|------|
| B.A. | Brigham Young University | International Relations | 1990 |
| M.A. | Brigham Young University | Anthropology            | 1992 |

***Experience Profile***

Wendy Simmons Johnson is the Regional Director for the Commonwealth Heritage Group, Inc. Ogden Office. She has more than two decades of cultural resource management on various projects in the Intermountain area. Ms. Simmons prepares bids, cost proposals, specialist work plans, sections of management and mitigation plans, MOA's and PA's in conjunction with federal agencies and other NEPA compliance documents. She also conducts project and field supervision, site evaluation and assessment of affect, historic site research, UHCS Reconnaissance Level Surveys, 106 Site Information forms, and performs QA/QC editing of reports.

***Professional Societies***

Register of Professional Archaeologists (RPA)  
American Cultural Resources Association (ACRA)

***Permits***

Utah PLPCO Principal Investigator Permit 308  
Utah Bureau of Land Management Permit 14UT54630; Historic Statewide; Prehistoric Great Basin  
Nevada State Museum Permit #267; Principal Investigator  
Nevada BLM Permit N-39969; Historic and Prehistoric Statewide  
State of Colorado Archaeological Permit 2017-26; Principal Investigator  
Colorado BLM Permit C-77910; State except CANM, LJGA, RGFO, and TRFO  
Wyoming BLM Permit 642-WY-SR17; Field Director

***Experience Profile***

2002-17 Principal Investigator, Commonwealth Heritage Group, Inc. Contract archaeological work on various projects in the Intermountain area. Duties include; project and field supervision, site evaluation, data collection, file searches, research and documentation of historic sites and events, participation in all phases of final report preparation, editing, drafting, ground survey of proposed project areas, the assessment of cultural resources within project scope, UHCS Reconnaissance Level Surveys, preparation of 106 site information forms, bids, cost proposals, MOA's, PA's, Specialist Work Plans, other NEPA compliance documents, sections of management and mitigation plans, photography, excavation and GPS mapping of both prehistoric and historic sites and laboratory analysis.

1996-02 Weber County Elections Administrator, Ogden, Utah.

1993-06 Senior Archaeologist, Sagebrush Archaeological Consultants, Ogden, Utah. Supervisor: Michael R. Polk, Archaeologist/Principal Investigator. Contract archaeological work on various projects in the Intermountain area. Duties include; project and field supervision, site evaluation, data collection, file searches, research and documentation of historic sites and events, participation in all phases of final report preparation.

1992 Archaeological Technician for the Office of Public Archaeology, Provo, Utah. Supervisor: James Wilde.

Duties included: laboratory work, processing flotation samples, processing artifacts, curation of artifacts, inventory, records research, survey, documentation of historic and prehistoric sites, drafting, test excavation, and all phases of final report preparation.

### ***Publications and Papers***

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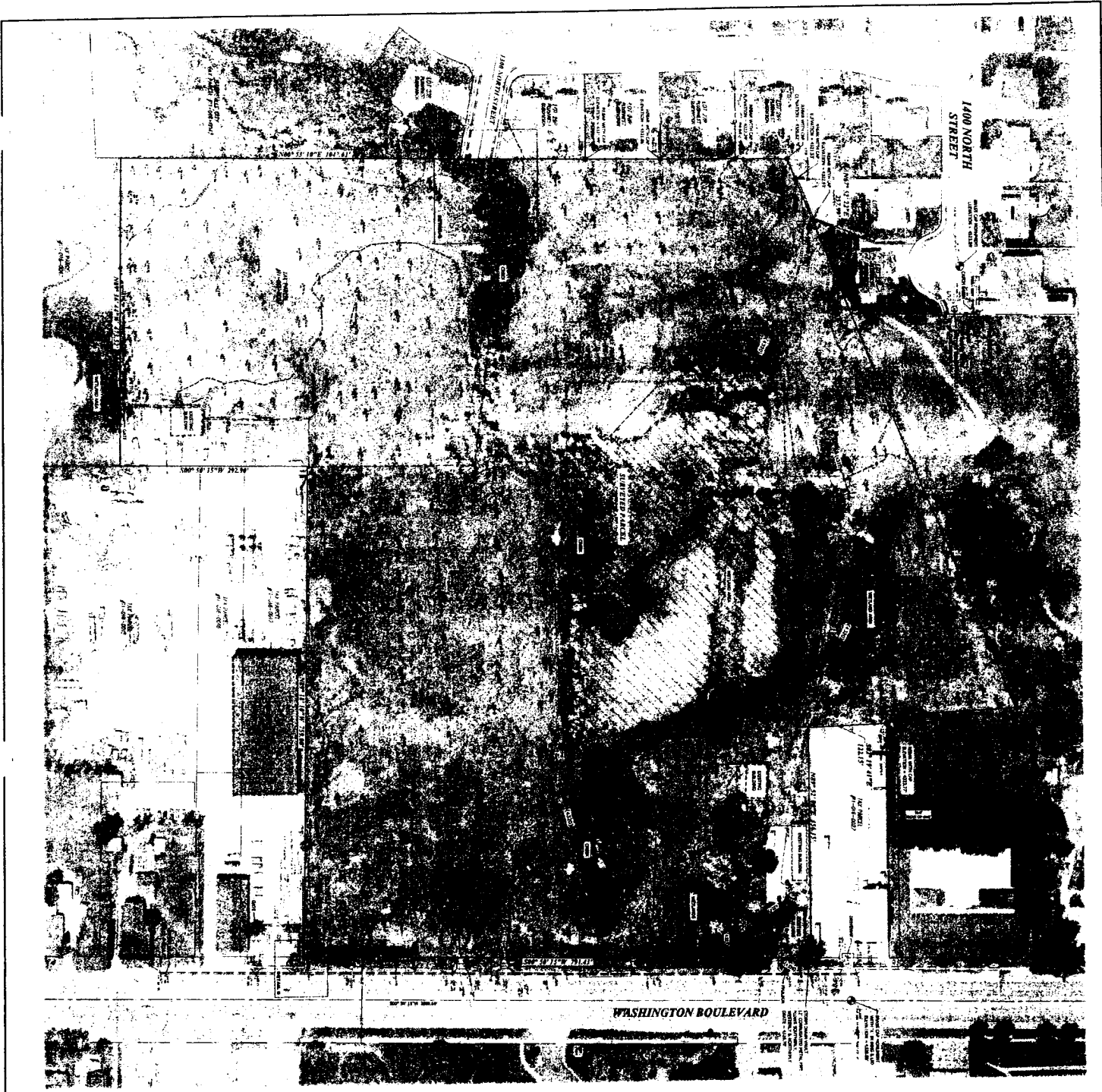
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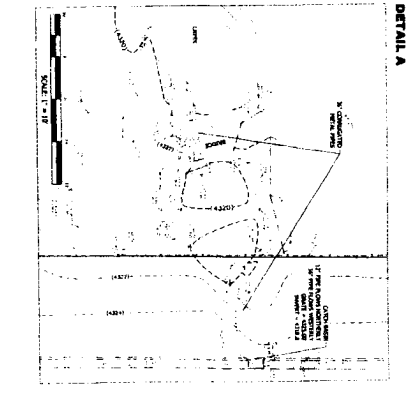
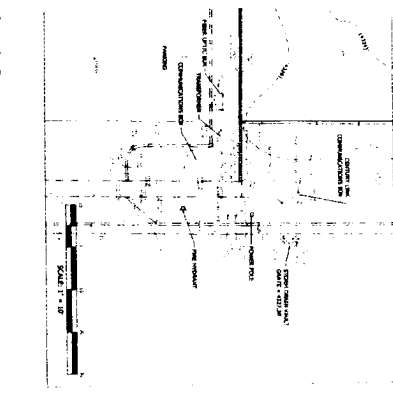
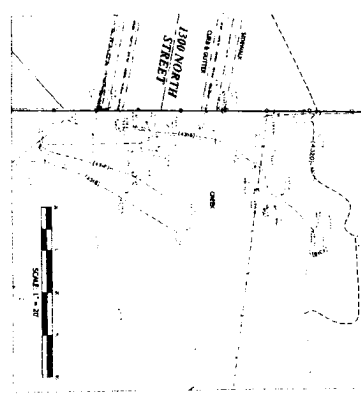
1400 NORTH STREET

WASHINGTON BOULEVARD

**TOPOGRAPHIC PLAN**

THIS PLAN IS A REPRODUCTION OF THE ORIGINAL TOPOGRAPHIC PLAN... IT IS THE RESPONSIBILITY OF THE USER TO VERIFY THE ACCURACY OF THE INFORMATION SHOWN HEREON...

|                                |       |
|--------------------------------|-------|
| Property Line                  | ---   |
| Survey Boundary                | ---   |
| Conventional Contour           | ..... |
| Spot Elevation                 | •     |
| Spot Elevation of 100' or More | •     |
| Spot Elevation of 50' or More  | •     |
| Spot Elevation of 20' or More  | •     |
| Spot Elevation of 10' or More  | •     |
| Spot Elevation of 5' or More   | •     |
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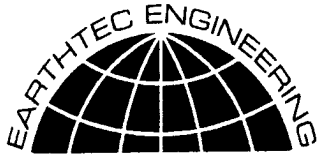
SCOTT SMOOT

1300 NORTH WASHINGTON BOULEVARD  
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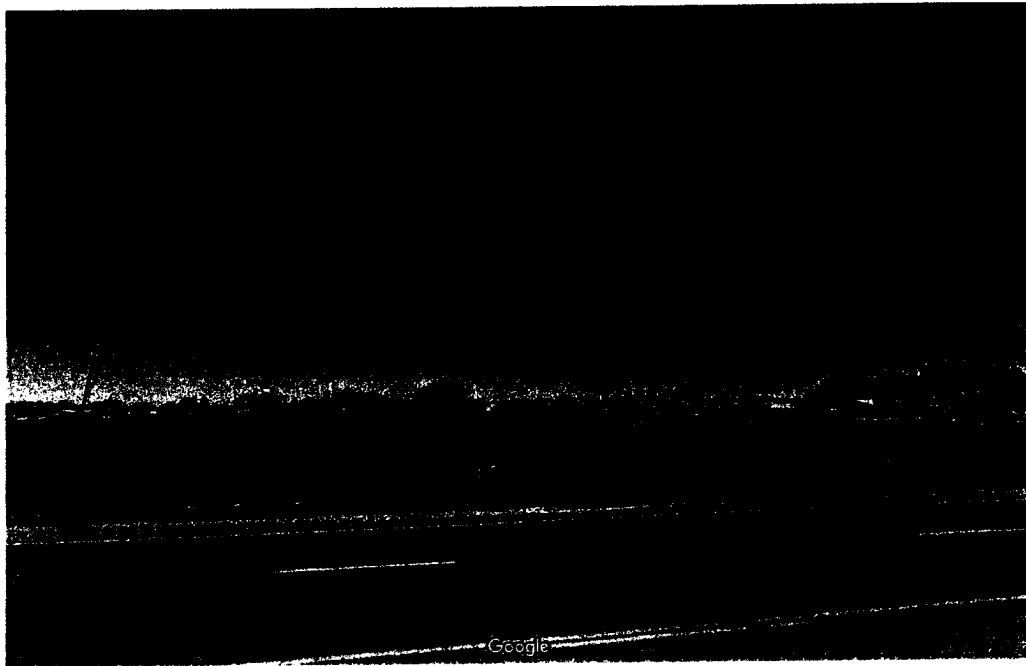
840 West 1700 South #10  
Salt Lake City, Utah - 84104  
Phone (801) 787-9138

1596 W. 2650 S. #108  
Ogden, Utah - 84401  
Phone (801) 399-9516

**Geotechnical Study  
Harrisville Park  
1471 North Washington Boulevard  
Harrisville, Utah**

**Project No. 219024**

October 4, 2021



*Prepared For:*

Mr. Scott Smoot  
1110 East Eaglewood Drive #2  
North Salt Lake, UT 84054



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No. 1 VICINITY MAP

No. 2 SITE PLAN SHOWING LOCATION OF BORINGS

Nos. 3 – 15 TEST PIT LOGS

No. 16 LEGEND

Nos. 17 – 21 CONSOLIDATION-SWELL TEST

**APPENDIX A**

Timpview Analytical Labs  
 OSHPD-U.S. Seismic Design Maps



## 1.0 SUMMARY

This entire report presents the results of Earthtec Engineering's completed geotechnical study for the Harrisville Park in Harrisville, Utah. This summary provides a general synopsis of our recommendations and findings. Details of our findings, conclusions, and recommendations are provided within the body of this report.

- The native clay soils have a negligible to moderate potential for collapse (settlement) or expansion (heave) and a slight potential for compression under increased moisture contents and anticipated load conditions. (see Section 6)
- Conventional strip and spread footings may be used to support the structures, with foundations placed entirely on firm, undisturbed, uniform native soils (i.e. completely on clay soils, or completely on sand soils, etc.) for structural loads up to 5,000 pounds per linear foot for bearing walls and up to 50,000 pounds for column loads. If loads exceed these see Section 10 for further recommendations.

Based on the results of our field exploration, laboratory testing, and engineering analyses, it is our opinion that the subject site may be suitable for the proposed development, provided the recommendations presented in this report are followed and implemented during design and construction.

Failure to consult with Earthtec Engineering (Earthtec) regarding any changes made during design and/or construction of the project from those discussed herein relieves Earthtec from any liability arising from changed conditions at the site. We also strongly recommend that Earthtec observes the building excavations to verify the adequacy of our recommendations presented herein, and that Earthtec performs materials testing and special inspections for this project to provide continuity during construction.

## 2.0 INTRODUCTION

The project is located at approximately 1471 North Washington Boulevard in Harrisville, Utah. The general location of the site is shown on Figure No. 1, *Vicinity Map* and Figure No. 2, *Site Plan Showing Location of Borings*, at the end of this report. The purposes of this study are to evaluate the subsurface soil conditions at the site, assess the engineering characteristics of the subsurface soils, and provide geotechnical recommendations for general site grading and the design and construction of foundations, concrete floor slabs, miscellaneous concrete flatwork, and asphalt paved parking and drive areas and a residential street.

The scope of work completed for this study included field reconnaissance, subsurface exploration, field and laboratory soil testing, geotechnical engineering analysis, and the preparation of this report.



### **3.0 PROPOSED CONSTRUCTION**

We understand that the proposed project, as described to us by Mr. Scott Smoot, consists of developing the approximately 27.53-acre existing parcel with the construction of townhomes and commercial buildings. The proposed structures will consist of conventionally framed, two- to three-story, townhomes with the possibility of basements and one-story, slab-on-grade commercial buildings. We have based our recommendations in this report that the anticipated foundation loads for the proposed structures will not exceed 5,000 pounds per linear foot for bearing walls, 100,000 pounds for column loads, and 100 pounds per square foot for floor slabs. If structural loads will be greater Earthtec should be notified so that we may review our recommendations and make modifications, if necessary.

In addition to the construction described above, we anticipate that utilities will be installed to service the proposed buildings, exterior concrete flatwork will be placed in the form of curb, gutter, sidewalks, driveways, and asphalt paved parking and drive areas and residential streets will be constructed.

### **4.0 GENERAL SITE DESCRIPTION**

#### **4.1 Site Description**

At the time of our subsurface exploration the site was an undeveloped parcel vegetated with grass, weeds, and trees. The ground surface appears to be relatively flat, we anticipate less than 3 feet of cut and fill may be required for site grading. The lot was bounded on the north, south and on the west by residential and commercial properties, and one the east by Washington Boulevard (400 East Street).

#### **4.2 Geologic Setting**

The subject property is located near the eastern shore of the Great Salt Lake in the valley between the Great Salt Lake Basin on the west and the Wasatch Mountain Range on the east. The valley and Great Salt Lake Basin were formed by extensional tectonic processes during the Tertiary and Quaternary geologic time periods. The valleys and lake basin to the west of the Wasatch Range have been partially filled with several thousand feet of lake (lacustrine) sediment during Lake Bonneville time, and post-Bonneville (Holocene) deltaic, lacustrine, alluvial, and colluvial deposits. The Wasatch Mountains to the east of the subject property are comprised of the early Proterozoic Farmington Canyon Complex consisting primarily of schist and gneiss. The surficial geology of the Ogden 7.5' Quadrangle has been mapped by Yonkee and Lowe, 2004<sup>1</sup>. The surficial geology at the location of the subject site and adjacent properties is mapped as (Map Unit Qml). These soil or deposits are generally described in the referenced mapping as "clay, silt, and fine-grained sand with minor gravel." However, a geologic hazard study was not performed for the subject site during this study.

<sup>1</sup> Yonkee, A., and Lowe, M., Geologic Map of the Ogden 7.5' Quadrangle, Weber and Davis Counties, Utah, 2004



## 5.0 SUBSURFACE EXPLORATION

### 5.1 Soil Exploration

Under the direction of a qualified member of our geotechnical staff, subsurface explorations were conducted at the site on September 14 and 15, 2021 by the boring of thirteen (13) borings to depths of 6½ to 51½ feet below the existing ground surface using a truck-mounted hydraulic drill rig. The approximate locations of the borings are shown on Figure No. 2, *Site Plan Showing Location of Borings*. Graphical representations and detailed descriptions of the soils encountered are shown on Figure Nos. 3 through 15, *Boring Log* at the end of this report. The stratification lines shown on the logs represent the approximate boundary between soil units; the actual transition may be gradual. Due to potential natural variations inherent in soil deposits, care should be taken in interpolating between and extrapolating beyond exploration points. A key to the symbols and terms on the logs is presented on Figure No. 16, *Legend*.

Samples of the subsurface soils were collected in the borings at depth intervals of approximately 2½ to 5 feet. Relatively undisturbed samples were collected by pushing thin-walled "Shelby" tubes into undisturbed soils below the augers. Disturbed samples were collected with a 1¾ inch inside diameter split spoon sampler. The split spoon sampler was driven 18 inches into undisturbed soil with a 140-pound hammer free-falling through a distance of 30 inches. The blows required to drive the sampler through the final 12 inches of penetration is called the "N-value" or "blow count," and is recorded as "blows per foot" on the attached boring logs at the respective sample depths. The blows for each 6-inch interval (or less) are noted on the logs when more than 50 blows per 6 inches (or less) of sampler driving were achieved. The blow count provides a reasonable indication of the in-place relative density of sandy soils but provides only a limited indication of the relative stiffness of cohesive (clayey) materials, since the penetration resistance for these soils is a function of the moisture content. In gravelly soils, the blow count may be higher than it otherwise would be, particularly when one or more gravel particles are larger than the sampler diameter.

The soil samples collected were classified by visual examination in the field following the guidelines of the Unified Soil Classification System (USCS). The samples were transported to our Lindon, Utah laboratory where they will be retained for 30 days following the date of this report and then discarded, unless a written request for additional holding time is received prior to the 30-day limit.

## 6.0 LABORATORY TESTING

Representative soil samples collected during our field exploration were tested in the laboratory to assess pertinent engineering properties and to aid in refining field classifications, if needed. Tests performed included natural moisture contents, dry density tests, liquid and plastic limits determinations, mechanical (partial) gradation analyses, and one-dimensional consolidation tests. The laboratory test results are also included on the attached *Boring Logs* at the respective



sample depths, and on Figure Nos. 17 through 21, *Consolidation-Swell Test*.

As part of the consolidation test procedure, water was added to the samples to assess moisture sensitivity when the samples were loaded to an equivalent pressure of approximately 1,000 psf. The native clay soils have a negligible to moderate potential for collapse (settlement) or expansion (heave) and a slight potential for compression under increased moisture contents and anticipated load conditions.

A water-soluble sulfate test was performed on a representative sample obtained during our field exploration which indicated a value of 147 parts per million. Based on this result, the risk of sulfate attack to concrete appears to be "negligible" according to American Concrete Institute standards. Therefore, there are no restrictions on the type of Portland cement that may be used for concrete in contact with on-site soils. The results can be found in Appendix A.

## **7.0 SUBSURFACE CONDITIONS**

### **7.1 Soil Types**

On the surface of the site, we encountered topsoil which is estimated to extend about ½ to 2 feet in depth at the boring locations. Below the topsoil we encountered layers of clay, silt, sand, and gravel extending to depths of 6½ to 51½ feet below the existing ground surface. Graphical representations and detailed descriptions of the soils encountered are shown on Figure Nos. 3 through 15, Boring Log at the end of this report. Based on the blow counts obtained during field exploration, the clay soils ranged from soft to very stiff in consistency and the sand and gravel soils had a relative density varying from very loose to very dense.

It should be considered that a limited number of small diameter soil borings were used during the course of our subsurface exploration. Topsoil composition and contacts are difficult to determine from boring sampling. Variation in topsoil depths may occur at the site.

### **7.2 Collapsible Soils**

Collapsible soils are typically characterized by a pinhole structure and relatively low unit weights. Foundations, floor slabs, and roadways supported on these soils may be susceptible to large settlements and structural distress when wetted. Significantly collapsible soils were not encountered in our explorations.

### **7.3 Groundwater Conditions**

Groundwater was encountered at depths of approximately 2½ to 15 feet below the existing ground surface. Note that groundwater levels will fluctuate in response to the season, precipitation, snow melt, irrigation, and other on and off-site influences. Quantifying these fluctuations would require long term monitoring, which is beyond the scope of this study. The contractor should be prepared to dewater excavations as needed.



## 8.0 SITE GRADING

### 8.1 General Site Grading

All surface vegetation and unsuitable soils (such as topsoil, organic soils, undocumented fill, soft, loose, or disturbed native soils, collapsible, and any other inapt materials) should be removed from below foundations, floor slabs, exterior concrete flatwork, and pavement areas. We encountered topsoil on the surface of the site. The topsoil (including soil with roots larger than about ¼ inch in diameter) should be completely removed, even if found to extend deeper, along with any other unsuitable soils that may be encountered. Over-excavations below footings and slabs also may be needed, as discussed in Section 10.0.

Fill placed over large areas, even if only a few feet in depth, can cause consolidation in the underlying native soils resulting in settlement of the fill. Because the site is relatively flat, we anticipate that less than 3 feet of grading fill will be placed. If more than 3 feet of grading fill will be placed above the existing surface (to raise site grades), Earthtec should be notified so that we may provide additional recommendations, if required. Such recommendations will likely include placing the fill several weeks (or possibly more) prior to construction to allow settlement to occur.

### 8.2 Temporary Excavations

Temporary excavations that are less than 4 feet in depth and above groundwater should have side slopes no steeper than ½H:1V (Horizontal:Vertical). Temporary excavations where water is encountered in the upper 4 feet or that extend deeper than 4 feet below site grades should be sloped or braced in accordance with OSHA<sup>2</sup> requirements for Type C soils.

### 8.3 Fill Material Composition

The native soils are not suitable for use as placed and compacted engineered fill. Excavated soils, including clay, may be stockpiled for use as fill in landscape areas.

Structural fill is defined as imported fill material that will ultimately be subjected to any kind of structural loading, such as those imposed by footings, floor slabs, pavements, etc. Gradation requirements stated below shall be verified in intervals not exceeding 1,000 tons. We recommend that imported structural fill consist of sandy/gravelly soils meeting the following requirements in the table below:

<sup>2</sup> OSHA Health and Safety Standards, Final Rule, CFR 29, part 1926.





**Table 1: Imported Structural Fill Recommendations**

| Sieve Size/Other | Percent Passing (by weight) |
|------------------|-----------------------------|
| 4 inches         | 100                         |
| 3/4 inches       | 70 – 100                    |
| No. 4            | 40 – 80                     |
| No. 40           | 15 – 50                     |
| No. 200          | 0 – 20                      |
| Liquid Limit     | 35 maximum                  |
| Plasticity Index | 15 maximum                  |

Engineered fill is defined as reworked granular (sands or gravels), native material that will ultimately be subjected to any kind of structural loading, such as those imposed by footings, floor slabs, pavements. Native clay and silt soils are not suitable for use as engineered fill. We recommend that a professional engineer or geologist verify that the engineered fill to be used on this project meets the requirements. Engineered fill should be clear of all organics, have a maximum particle size of 4 inches, less than 70 percent retained on the 3/4-seive, a maximum Liquid Limit of 35, and a maximum Plasticity Index of 15.

In some situations, particles larger than 4 inches and/or more than 30 percent coarse gravel may be acceptable but would likely make compaction more difficult and/or significantly reduce the possibility of successful compaction testing. Consequently, stricter quality control measures than normally used may be required, such as using thinner lifts and increased or full-time observation of fill placement.

We recommend that utility trenches below any structural load be backfilled using structural fill or engineered fill. Local governments or utility companies required specification for backfill should be followed unless our recommendations stricter.

If native soil is used as fill material, the contractor should be aware that native clay and silt soils (as observed in the explorations) may be time consuming to compact due to potential difficulties in controlling the moisture content needed to obtain optimum compaction and changes proctor values.

If required (i.e. fill in submerged areas), we recommend that free draining granular material (clean sand and/or gravel) meet the following requirements in the table below:

**Table 2: Free-Draining Fill Recommendations**

| Sieve Size/Other | Percent Passing (by weight) |
|------------------|-----------------------------|
| 3 inches         | 100                         |
| No. 10           | 0 – 25                      |
| No. 40           | 0 – 15                      |
| No. 200          | 0 – 5                       |
| Plasticity Index | Non-plastic                 |

Three-inch minus washed rock (sometimes called river rock or drain rock) and pea gravel



materials usually meet these requirements and may be used as free draining fill. If free draining fill will be placed adjacent to soil containing a significant amount of sand or silt/clay, precautions should be taken to prevent the migration of fine soil into the free draining fill. Such precautions should include either placing a filter fabric between the free draining fill and the adjacent soil material, or using a well-graded, clean filtering material approved by the geotechnical engineer.

#### **8.4 Fill Placement and Compaction**

The thickness of each lift should be appropriate for the compaction equipment that is used. We recommend a maximum lift thickness prior to compaction of 4 inches for hand operated equipment, 6 inches for most "trench compactors" and 8 inches for larger rollers, unless it can be demonstrated by in-place density tests that the required compaction can be obtained throughout a thicker lift. The full thickness of each lift of structural fill placed should be compacted to at least the following percentages of the maximum dry density, as determined by ASTM D-1557:

- In landscape and other areas not below structurally loaded areas: 90%
- Less than 5 feet of fill below structurally loaded areas: 95%
- 5 feet or greater of fill below structurally loaded areas: 98%

Generally, placing and compacting fill at moisture contents within  $\pm 2$  percent of the optimum moisture content, as determined by ASTM D-1557, will facilitate compaction. Typically, the further the moisture content deviates from optimum the more difficult it will be to achieve the required compaction.

Fill should be tested frequently during placement and we recommend early testing to demonstrate that placement and compaction methods are achieving the required compaction. The contractor is responsible to ensure that fill materials and compaction efforts are consistent so that tested areas are representative of the entire fill.

#### **8.5 Stabilization Recommendations**

Near surface soils may rut and pump during grading and construction. The likelihood of rutting and/or pumping, and the depth of disturbance, is proportional to the moisture content in the soil, the load applied to the ground surface, and the frequency of the load. Consequently, rutting and pumping can be minimized by avoiding concentrated traffic, minimizing the load applied to the ground surface by using lighter equipment, partially loaded equipment, tracked equipment, by working in dry times of the year, and/or by providing a working surface for equipment. However, because of the relatively shallow depth of groundwater, it is likely that rutting and pumping may not be avoidable.

During grading the soil in any obvious soft spots should be removed and replaced with granular material. If rutting or pumping occurs traffic should be stopped in the area of concern. The soil in rutted areas should be removed and replaced with granular material. In areas where pumping occurs the soil should either be allowed to sit until pore pressures dissipate (several hours to several days) and the soil firms up or be removed and replaced with granular material. Typically, we recommend removal to a minimum depth of 24 inches.



For granular material, we recommend using angular well-graded gravel, such as pit run, or crushed rock with a maximum particle size of four inches. We suggest that the initial lift be approximately 12 inches thick and be compacted with a static roller-type compactor. A finer granular material such as sand, gravelly sand, sandy gravel or road base may also be used. Materials which are more angular and coarse may require thinner lifts in order to achieve compaction. We recommend that the fines content (percent passing the No. 200 sieve) be less than 15%, the liquid limit be less than 35, and the plasticity index be less than 15.

Using a geosynthetic fabric, such as Mirafi 600X or equivalent, may also reduce the amount of material required and avoid mixing of the granular material and the subgrade. If a fabric is used, following removal of disturbed soils and water, the fabric should be placed over the bottom and up the sides of the excavation a minimum of 24 inches. The fabric should be placed in accordance with the manufacturer's recommendations, including proper overlaps. The granular material should then be placed over the fabric in compacted lifts. Again, we suggest that the initial lift be approximately 12 inches thick and be compacted with a static roller-type compactor.

## 9.0 SEISMIC AND GEOLOGIC CONSIDERATIONS

### 9.1 Seismic Design

The State of Utah has adopted the 2018 International Building Code (IBC) for seismic design and the structure should be designed in accordance with Chapter 16 of the IBC. We encountered some potentially liquefiable soil layers but given the small amount of possible liquefaction-induced movements, we recommend using Site Class D (Default).

The site is located at approximately 41.282 degrees latitude and -111.972 degrees longitude. Using Site Class D (Default), the design spectral response acceleration parameters are given below.

Table 3: Design Accelerations

| S <sub>s</sub> | F <sub>a</sub> | S <sub>ms</sub> | S <sub>DS</sub> | S <sub>1</sub> |
|----------------|----------------|-----------------|-----------------|----------------|
| 1.451 g        | 1.2            | 1.741 g         | 1.161 g         | 0.533 g        |

### 9.2 Faulting

The subject property is located within the Intermountain Seismic Belt where the potential for active faulting and related earthquakes is present. Based upon published geologic maps<sup>3</sup>, no active faults traverse through or immediately adjacent to the site and the site is not located within local fault study zones. The nearest mapped fault trace is the Wasatch Fault located about 1¼ miles east of the site.

<sup>3</sup> U.S. Geological Survey, Quaternary Fault and Fold Database of the United States, November 3, 2010.



### 9.3 Liquefaction Potential

According to current liquefaction maps<sup>4</sup> for Weber County, the site is located within an area designated as "Moderate to High" in liquefaction potential. Liquefaction can occur when saturated subsurface soils below groundwater lose their inter-granular strength due to an increase in soil pore water pressures during a dynamic event such as an earthquake. Loose, saturated sands are most susceptible to liquefaction, but some loose, saturated gravels and relatively sensitive silt to low-plasticity silty clay soils can also liquefy during a seismic event. Subsurface soils encountered were composed of saturated clay and sand soils.

As part of this study, the potential for liquefaction to occur in the soils we encountered was assessed using Youd *et al*<sup>5</sup> and Boulanger & Idriss<sup>6</sup>. Potential liquefaction-induced movements were evaluated using Tokimatsu & Seed<sup>7</sup> and Youd, Hansen & Bartlett<sup>8</sup>. Our analysis indicates that approximately up to 3 inches of liquefaction-induced settlement and possibly up to 1¾ feet of lateral spreading could occur during a moderate to large earthquake event. The liquefaction potential at the site can be mitigated using one of the following alternatives:

- Install a gravel/geogrid raft system beneath the building so that the building will react as a cohesive unit. This may result in some tilting of the building due to differential liquefaction-induced movements. The building may also move laterally due to lateral spreading.
- Connect/tie all footings together using reinforced grade beams and connect reinforced slabs to the footings so that the building will react as a cohesive unit. This may result in some tilting of the building due to differential liquefaction-induced movements. The building may also move laterally due to lateral spreading.

## 10.0 FOUNDATIONS

### 10.1 General

The foundation recommendations presented in this report are based on the soil conditions encountered during our field exploration, the results of laboratory testing of samples of the native soils, the site grading recommendations presented in this report, and the foundation loading conditions presented in Section 3.0, *Proposed Construction*, of this report. If loading conditions

<sup>4</sup> Utah Geological Survey, Liquefaction Special Study Areas, Wasatch Front and Nearby Areas, Utah, Circular 106 Public Information Series 28, August 1994.

<sup>5</sup> Youd, T.L. (Chair), Idriss, I.M. (Co-Chair), and 20 other authors, 2001, Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, October 2001, p. 817-833.

<sup>6</sup> Boulanger, R.W. and Idriss, I.M., 2006, Liquefaction Susceptibility Criteria for Silts and Clays, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, November 2006, p. 1413-1426.

<sup>7</sup> Tokimatsu, K. and Seed, H.B., 1987, Evaluation of Settlements in Sands due to Earthquake Shaking, Journal of Geotechnical Engineering, ASCE, p. 861-878.

<sup>8</sup> Youd, T.L., Hansen, C.M. and Bartlett, S.F., 2002, Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, December 2002, p. 1007-1017.



and assumptions related to foundations are significantly different, Earthtec should be notified so that we can re-evaluate our design parameters and estimates (higher loads may cause more settlement), and to provide additional recommendations if necessary.

Conventional strip and spread footings may be used to support the proposed structures after appropriate removals as outlined in Section 8.1. Foundations should not be installed on topsoil, undocumented fill, debris, combination soils, organic soils, frozen soil, or in ponded water. If foundation soils become disturbed during construction, they should be removed or compacted.

## 10.2 Strip/Spread Footings

We recommend that conventional strip and spread foundations be constructed entirely on firm, undisturbed, uniform native soils (i.e. completely on clay soils, or completely on sand soils, etc.) for structural loads up to 5,000 pounds per linear foot for bearing walls and up to 50,000 pounds for column loads. If loads exceed 5,000 pounds per linear foot for bearing walls or 50,000 pounds for column loads specified structural fill depths are below.

**Table 4: Depth of Structural Fill**

| Structural Load (kips) | Depth of Structural Fill (in) |
|------------------------|-------------------------------|
| Up to 50               | 0                             |
| 50 – 70                | 18                            |
| 70 – 100               | 36                            |

For foundation design we recommend the following:

- Footings founded on undisturbed native soils may be designed using a maximum allowable bearing capacity of 1,500 pounds per square foot. Footings founded on a minimum of 18 inches of structural fill extending to undisturbed native soil may be designed using a maximum allowable bearing capacity of 2,000 pounds per square foot. The values for vertical foundation pressure can be increased by one-third for wind and seismic conditions per Section 1806 when used with the Alternative Basic Load Combinations found in Section 1605.3.2 of the 2018 International Building Code.
- Continuous and spot footings should be uniformly loaded and should have a minimum width of 20 and 30 inches, respectively.
- Exterior footings should be placed below frost depth which is determined by local building codes. In general, 30 inches of cover is adequate for most sites; however local code should be verified by the end design professional. Interior footings, not subject to frost (heated structures), should extend at least 18 inches below the lowest adjacent grade.
- Foundation walls and footings should be properly reinforced to resist all vertical and lateral loads and differential settlement.
- The bottom of footing excavations should be compacted with at least 4 passes of an approved non-vibratory roller prior to erection of forms or placement of structural fill to densify soils that



may have been loosened during excavation and to identify soft spots. If soft areas are encountered, they should be stabilized as recommended in Section 8.5.

- Footing excavations should be observed by the geotechnical engineer prior to beginning fill placement or footing construction if fill is not required to evaluate whether suitable bearing soils have been exposed and whether excavation bottoms are free of loose or disturbed soils.
- Because of shallow groundwater conditions encountered at the site, we anticipate of structural fill may be required below the proposed structure to provide a firm surface upon which to construct the proposed structure.
- In lieu of traditional structural fill, clean 1- to 2-inch clean gravel may be used in conjunction with a stabilization fabric, such as Mirafi 600X or equivalent, which should be placed between the native soils and the clean gravel (additional recommendations for placing clean gravel and stabilization fabric are given in Section 8.5 of this report).
- Structural fill used below foundations should extend laterally a minimum of 6 inches for every 12 vertical inches of structural fill placed. For example, if 18 inches of structural fill is required to bring the excavation to footing grade, the structural fill should extend laterally a minimum of 9 inches beyond the edge of the footings on both sides.

### **10.3 Estimated Settlements**

If the proposed foundations are properly designed and constructed using the parameters provided above, we estimate that total settlements should not exceed one inch and differential settlements should be one-half of the total settlement over a 25-foot length of continuous foundation, for non-earthquake conditions. Additional settlement could occur during a seismic event due to ground shaking, if more than 3 feet of grading fill is placed above the existing ground surface, if loading conditions are greater than anticipated in Section 2, and/or if foundation soils are allowed to become wetted.

### **10.4 Lateral Earth Pressures**

Below grade walls act as soil retaining structures and should be designed to resist pressures induced by the backfill soils. The lateral pressures imposed on a retaining structure are dependent on the rigidity of the structure and its ability to resist rotation. Most retaining walls that can rotate or move slightly will develop an active lateral earth pressure condition. Structures that are not allowed to rotate or move laterally, such as subgrade basement walls, will develop an at-rest lateral earth pressure condition. Lateral pressures applied to structures may be computed by multiplying the vertical depth of backfill material by the appropriate equivalent fluid density. Any surcharge loads in excess of the soil weight applied to the backfill should be multiplied by the appropriate lateral pressure coefficient and added to the soil pressure. For static conditions the resultant forces are applied at about one-third the wall height (measured from bottom of wall). For seismic conditions, the resultant forces are applied at about two-third times the height of the wall both measured from the bottom of the wall. The lateral pressures presented in the table below are based on drained, horizontally placed structural fill (as outlined in this report) native soils as backfill material using a 28° friction angle and a dry unit weight of 120 pcf.



**Table 5: Lateral Earth Pressures (Static and Dynamic)**

| Condition | Case    | Lateral Pressure Coefficient | Equivalent Fluid Pressure (pcf) |
|-----------|---------|------------------------------|---------------------------------|
| Active    | Static  | 0.36                         | 43                              |
|           | Seismic | 0.65                         | 78                              |
| At-Rest   | Static  | 0.53                         | 64                              |
|           | Seismic | 0.81                         | 98                              |
| Passive   | Static  | 2.77                         | 332                             |
|           | Seismic | 3.01                         | 361                             |

\*Seismic values combine the static and dynamic values

These pressure values do not include any surcharge and are based on a relatively level ground surface at the top of the wall and drained conditions behind the wall. It is important that water is not allowed to build up (hydrostatic pressures) behind retaining structures. Retaining walls should incorporate drainage behind the walls as appropriate, and surface water should be directed away from the top and bottom of the walls.

Lateral loads are typically resisted by friction between the underlying soil and footing bottoms. Resistance to sliding may incorporate the friction acting along the base of foundations, which may be computed using a coefficient of friction of soils against concrete of 0.30 for native clay and silt, 0.40 for native sands, and 0.55 for native gravels, clean gravel, or structural fill meeting the recommendations presented herein. For allowable stress design, the lateral resistance may be computed using Section 1807 of the 2018 International Building Code and all sections referenced therein. Retaining wall lateral resistance design should further reference Section 1807.2.3 for reference of Safety Factors. Retaining systems are assumed to be founded upon and backfilled with granular structural fill. If backfilling with clay or silt, it is required to contact Earthtec prior to construction for further review and recommendations. The values for lateral foundation pressure can be increased by one-third for wind and seismic conditions per Section 1806.1 when used with the Alternative Basic Load Combinations found in Section 1605.3.2 of the 2018 International Building Code.

## 11.0 FLOOR SLABS AND FLATWORK

Due to shallow groundwater encountered at the site, lowest floor slab depths should be limited to 1 feet below existing site grades. This is intended to provide a minimum of 3 feet of separation between the observed groundwater condition and the bottom of the floor slab.

Concrete floor slabs and exterior flatwork may be supported on undisturbed native soils or on a minimum of 12 inches properly placed, compacted, and tested engineered fill or imported structural fill extending to undisturbed native soils after appropriate removals and grading as outlined in Section 8.1 are completed. We recommend placing a minimum of 4 inches of free-draining fill material (see Section 8.3) beneath floor slabs to facilitate construction, act as a capillary break, and aid in distributing floor loads. For exterior flatwork, we recommend placing a minimum of 4 inches of road-base material. Prior to placing the free-draining fill or road-base



materials, the native sub-grade should be proof-rolled to identify soft spots, which should be stabilized as discussed above in Section 8.5.

For slab design, we recommend using a modulus of sub-grade reaction of 120 pounds per cubic inch. The thickness of slabs supported directly on the ground shall not be less than 3½ inches. A 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches shall be placed between the ground surface and the concrete, as per Section 1907.1 of the 2018 International Building Code.

To help control normal shrinkage and stress cracking, we recommend that floor slabs have adequate reinforcement for the anticipated floor loads with the reinforcement continuous through interior floor joints, frequent crack control joints, and non-rigid attachment of the slabs to foundation and bearing walls. Special precautions should be taken during placement and curing of all concrete slabs and flatwork. Excessive slump (high water-cement ratios) of the concrete and/or improper finishing and curing procedures used during hot or cold weather conditions may lead to excessive shrinkage, cracking, spalling, or curling of slabs. We recommend all concrete placement and curing operations be performed in accordance with American Concrete Institute (ACI) codes and practices.

## **12.0 DRAINAGE**

### **12.1 Surface Drainage**

As part of good construction practice, precautions should be taken during and after construction to reduce the potential for water to collect near foundation walls. Accordingly, we recommend the following:

- The contractor should take precautions to prevent significant wetting of the soil at the base of the excavation. Such precautions may include: grading to prevent runoff from entering the excavation, excavating during normally dry times of the year, covering the base of the excavation if significant rain or snow is forecast, backfill at the earliest possible date, frame floors and/or the roof at the earliest possible date, other precautions that might become evident during construction.
- Adequate compaction of foundation wall backfill must be provided i.e. a minimum of 90% of ASTM D-1557. Water consolidation methods should not be used.
- The ground surface should be graded to drain away from the building in all directions. We recommend a minimum fall of 8 inches in the first 10 feet.
- Roof runoff should be collected in rain gutters with down spouts designed to discharge well outside of the backfill limits, or at least 10 feet from foundations, whichever is greater.
- Sprinkler nozzles should be aimed away, and all sprinkler components kept at least 5 feet, from foundation walls. A drip irrigation system may be utilized in landscaping areas within 10





feet of foundation walls to minimize water intrusion at foundation backfill. Also, sprinklers should not be placed at the top or on the face of slopes. Sprinkler systems should be designed with proper drainage and well maintained. Over-watering should be avoided.

- Any additional precautions which may become evident during construction.

**12.2 Subsurface Drainage**

Walls or portions thereof that retain earth and enclose interior spaces and floors below grade shall conform to Section 1805 of the 2018 International Building Code for damp proofing and water proofing.

**13.0 PAVEMENT RECOMMENDATIONS**

We understand that asphalt paved parking and drive areas and residential streets will be constructed as part of the project. The native soils encountered beneath the topsoil during our field exploration were predominantly composed of clays. We estimate that a California Bearing Ratio (CBR) value of 3 is appropriate for these soils. If the topsoil is left beneath concrete flatwork and pavement areas, increased maintenance costs over time should be anticipated.

We anticipate that the traffic volume will be about 2,250 vehicles per day (8.6 ESAL/day) or less for the parking and drive areas, consisting of mostly cars and pickup trucks, with a daily delivery truck and a weekly garbage truck. Based on these traffic parameters, the estimated CBR given above, a 20-year life expectancy, and the procedures and typical design inputs outlined in the UDOT Pavement Design Manual (2008), we recommend the minimum asphalt pavement section presented below. The pavement section should meet the minimum values are required by the jurisdiction or the values below, whichever is greater.

**Table 6: Pavement Section Recommendations**

| Asphalt Thickness (in) | Compacted Aggregate Base Thickness (in) | Compacted Subbase Thickness (in) |
|------------------------|---|----------------------------------|
| 3                      | 6                                       | 12*                              |
| 3                      | 16*                                     | 0                                |
| 4                      | 6                                       | 6*                               |
| 4                      | 12*                                     | 0                                |

\* Stabilization may be required

If the pavement will be required to support excessive construction traffic (such as dump trucks hauling soil to raise or lower the site), more than an occasional semi-tractor or fire truck, or more traffic than listed above, our office should be notified so that we can re-evaluate the pavement section recommendations. The following also apply:

- The subgrade should be prepared by proof rolling to a firm, non-yielding surface, with any identified soft areas stabilized as discussed above in Section 8.5.



- Site grading fills below the pavements should meet structural fill composition and placement recommendations per Sections 8.3 and 8.4 herein.
- Asphaltic concrete, aggregate base and sub-base material composition should meet local, APWA, or UDOT requirements. Gradation requirements and frequency shall be followed as required by local, APWA, or UDOT requirements, but not to exceed 500 tons.
- Aggregate base and sub-base is compacted to local, APWA, or UDOT requirements, or to at least 95 percent of maximum dry density (ASTM D 1557).
- The aggregate base shall have a CBR value to 70 percent or greater and the subbase shall have a CBR value of 10 percent or greater.
- Asphaltic concrete is compacted to local or UDOT requirements, or to at least 96 percent of the laboratory Marshall density (ASTM D 6927).

Due to high static loads imposed by trucks in loading and unloading areas and at dumpster locations, we recommend that a rigid pavement section for these areas of a minimum of six (6) inches of Portland Cement Concrete (PCC) over a minimum of six (6) inches of aggregate base material. The aggregate base material should meet local, APWA or UDOT requirements and should be compacted to local, APWA, or UDOT requirements, or to at least 95 percent of maximum dry density (ASTM D1557).

#### **14.0 GENERAL CONDITIONS**

The exploratory data presented in this report was collected to provide geotechnical design recommendations for this project. The explorations may not be indicative of subsurface conditions outside the study area or between points explored and thus have a limited value in depicting subsurface conditions for contractor bidding. Variations from the conditions portrayed in the explorations may occur and which may be sufficient to require modifications in the design. If during construction, conditions are different than presented in this report, Earthtec should be advised immediately so that the appropriate modifications can be made.

The findings and recommendations presented in this geotechnical report were prepared in accordance with generally accepted geotechnical engineering principles and practice in this area of Utah at this time. No warranty or representation is intended in our proposals, contracts, letters, or reports. Failure to consult with Earthtec regarding any changes made during design and/or construction of the project from those discussed herein relieves Earthtec from any liability arising from changed conditions at the site.

This geotechnical report is based on relatively limited subsurface explorations and laboratory testing. Subsurface conditions may differ in some locations of the site from those described herein, which may require additional analyses and possibly modified recommendations. Thus, we strongly recommend consulting with Earthtec regarding any changes made during design and construction of the project from those discussed herein. Failure to consult with Earthtec regarding



any such changes relieves Earthtec from any liability arising from changed conditions at the site.

To maintain continuity, Earthtec should also perform materials testing and special inspections for this project. The recommendations presented herein are based on the assumption that an adequate program of tests and observations will be followed during construction to verify compliance with our recommendations. We also assume that we will review the project plans and specifications to verify that our conclusions and recommendations are incorporated and remain appropriate (based on the actual design). Earthtec should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Earthtec also should be retained to provide observation and testing services during grading, excavation, foundation construction, and other earth-related construction phases of the project.

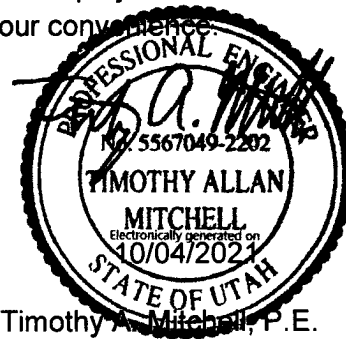
We appreciate the opportunity of providing our services on this project. If we can answer questions or be of further service, please contact Earthtec at your convenience.

Respectfully;

**EARTHTEC ENGINEERING**



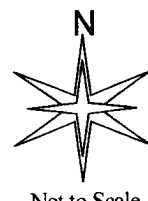
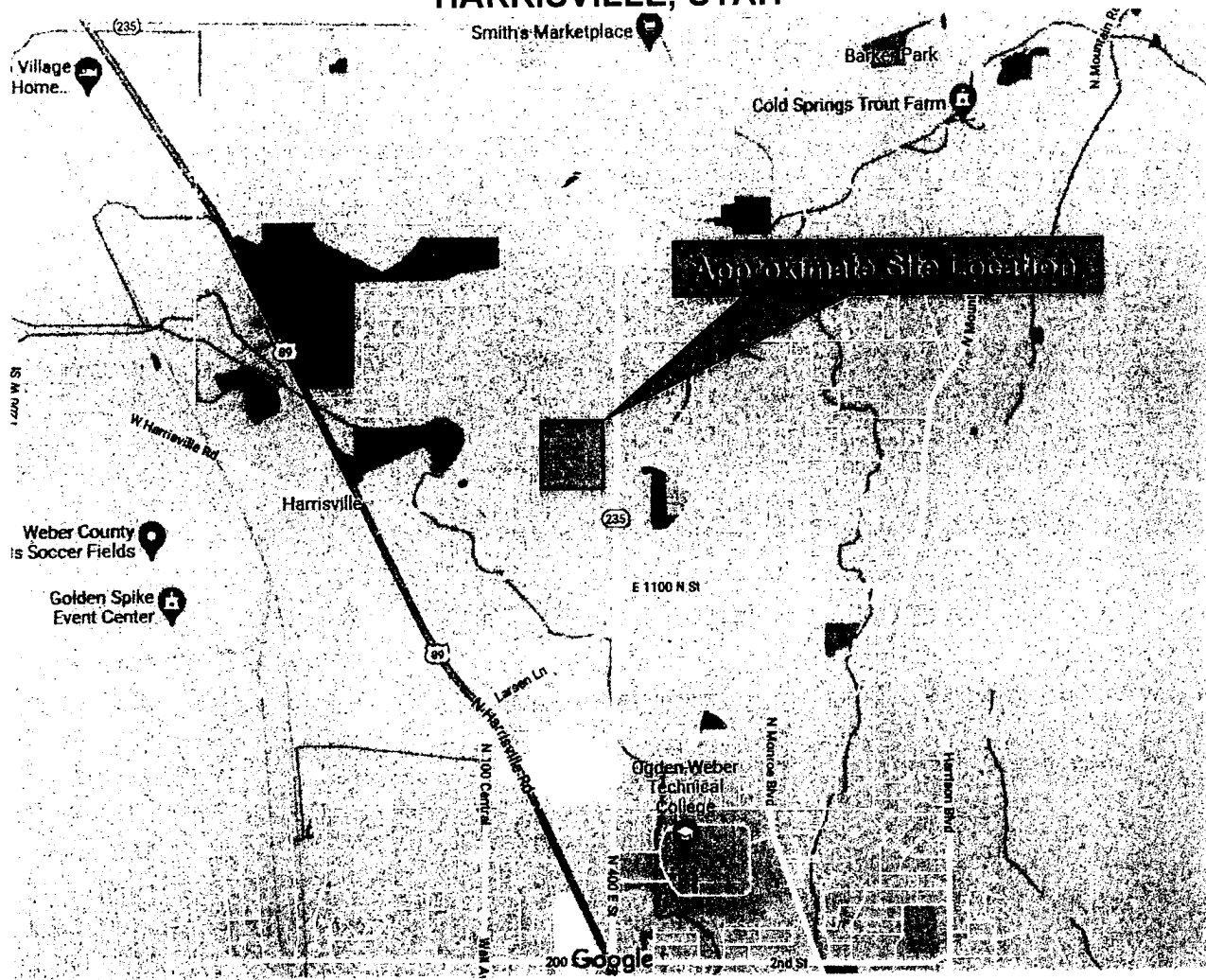
Jeremy A. Balleck, E.I.T.  
Staff Engineer



Timothy A. Mitchell, P.E.  
Vice President



# VICINITY MAP HARRISVILLE PARK 1471 NORTH WASHINGTON BOULEVARD HARRISVILLE, UTAH



Not to Scale

PROJECT NO.: 219024

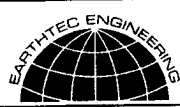
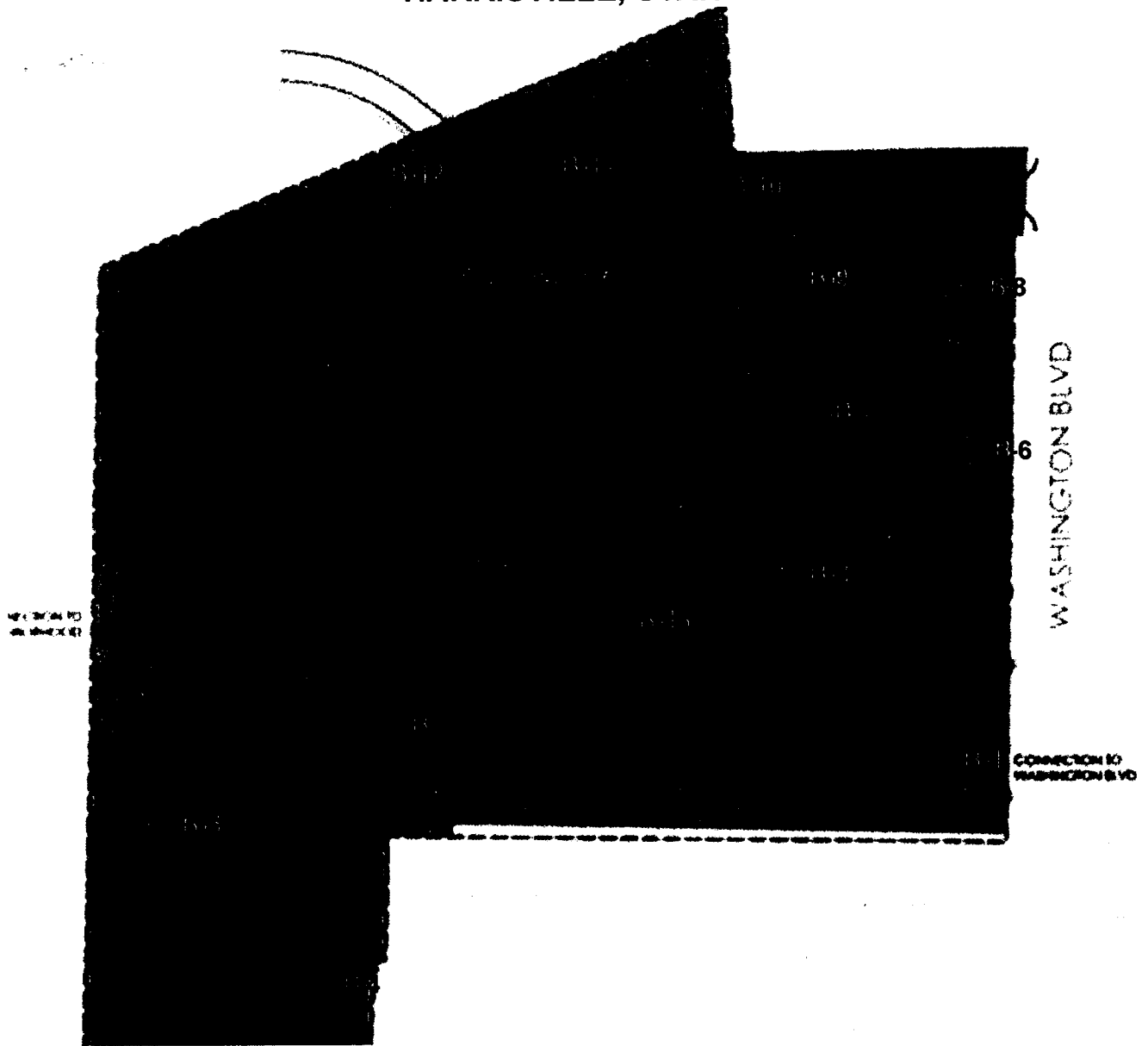


FIGURE NO.: 1

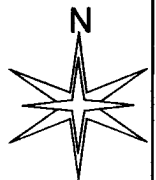
# SITE PLAN SHOWING LOCATION OF BORINGS

HARRISVILLE PARK  
1471 NORTH WASHINGTON BOULEVARD  
HARRISVILLE, UTAH



\*Site Plan provided by Client.

 **Approximate Boring Locations**



Not to Scale

PROJECT NO.: 219024



FIGURE NO.: 2

# BORING LOG

NO.: B-01

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL  $\nabla$ :**

**PROJECT NO.:** 219024  
**DATE:** 09/14/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION  $\nabla$ :**

| Depth (Ft.) | Graphic Log | USCS | Description   | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|---|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |   |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, dry, light brown, roots                 |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             |      | Lean CLAY, stiff to very stiff, slightly moist, light brown |         | 26             |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      |   |         |                | 20              | 114             | 39 | 20 | 0          | 6        | 94        | C          |  |
| 9           |             | CL   |   |         | 13             |                 |                 |    |    |            |          |           |            |  |
| 12          |             |      |   |         | 18             |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      | ... some thin interbedded sand layers                       |         | 14             |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      | Maximum depth explored approximately 16½ feet               |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

**Notes:** No groundwater encountered

- Tests Key**  
 CBR = California Bearing Ratio  
 C = Consolidation  
 R = Resistivity/Nitrates/PH  
 DS = Direct Shear  
 SS = Soluble Sulfates  
 UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 3

# BORING LOG

NO.: B-02

**PROJECT:** Harrisville Park

**CLIENT:** Scott Smoot

**LOCATION:** See Figure 2

**OPERATOR:** Drill Tech

**EQUIPMENT:** Truck Drill Rig

**DEPTH TO WATER; INITIAL** ∇ : 3.5 ft.

**PROJECT NO.:** 219024

**DATE:** 09/14/21

**ELEVATION:** Not Measured

**LOGGED BY:** J. Balleck

**AT COMPLETION** ∇ : 3 ft.

| Depth (Ft.) | Graphic Log | USCS  | Description   | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |    |
|-------------|-------------|-------|---|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|----|
|             |             |       |   |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |    |
| 0           |             |       | TOPSOIL, lean clay, dry, light brown, roots                       |         |                |                 |                 |    |    |            |          |           |            |    |
| 3           |             |       | Silty SAND with gravel, very loose to loose, moist to wet, gray   |         | 4              |                 |                 |    |    |            |          |           |            | SS |
| 6           |             | SM    | ... calcified nodules   |         | 2              | 45              |                 | 44 | 14 | 17         | 34       | 49        |            |    |
| 9           |             |       |   |         | 9              |                 |                 |    |    |            |          |           |            |    |
| 12          |             | GM    | Silty GRAVEL with sand, medium dense, wet, gray                   |         | 25             |                 |                 |    |    |            |          |           |            |    |
| 15          |             | SP-SM | Poorly Graded SAND with silt and gravel, medium dense, wet, brown |         | 13             |                 |                 |    |    |            |          |           |            |    |
| 18          |             |       | Maximum depth explored approximately 16½ feet                     |         |                |                 |                 |    |    |            |          |           |            |    |
| 21          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |    |
| 24          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |    |
| 27          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |    |

**Notes:** Groundwater encountered at approximately 3 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 4

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

# BORING LOG

NO.: B-03

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL ∇ :**

**PROJECT NO.:** 219024  
**DATE:** 09/14/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION ▼ :**

| Depth (Ft.) | Graphic Log | USCS | Description   | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|---|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |   |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, dry, light brown                        |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             |      | Lean CLAY, stiff to very stiff, slightly moist, light brown |         |                |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      |   |         | 30             |                 |                 |    |    |            |          |           |            |  |
| 9           |             | CL   |   |         |                | 22              | 106             | 40 | 20 | 1          | 5        | 94        | C          |  |
| 12          |             |      |   |         | 15             |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      | ... moist, some thin interbedded sand layers                |         | 11             | 25              |                 | 40 | 20 |            |          |           |            |  |
| 18          |             |      | Maximum depth explored approximately 16½ feet               |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** No groundwater encountered

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 5

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21



# BORING LOG

NO.: B-04

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 15 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/14/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION** ▼ :

| Depth (Ft.) | Graphic Log | USCS | Description  | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |   |
|-------------|-------------|------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|---|
|             |             |      |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |   |
| 0           |             |      | TOPSOIL, lean clay, dry, light brown   |         |                |                 |                 |    |    |            |          |           |            |  |   |
| 3           |             |      | Lean CLAY, very stiff to medium stiff, slightly moist to moist, light brown to brown |         |                |                 |                 |    |    |            |          |           |            |  |   |
| 6           |             |      |  |         | 15             | 120             | 45              | 24 | 1  | 4          | 95       |           |            |  | C |
| 9           |             | CL   | ... mottled  |         | 16             |                 |                 |    |    |            |          |           |            |  |   |
| 12          |             |      |  |         | 10             |                 |                 |    |    |            |          |           |            |  |   |
| 15          |             |      | ... very moist to wet, dark brown to brown   |         | 15             |                 |                 |    |    |            |          |           |            |  |   |
| 18          |             |      | Maximum depth explored approximately 16½ feet  |         | 5              | 29              |                 | 32 | 14 | 0          | 9        | 91        |            |  |   |
| 21          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |   |
| 24          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |   |
| 27          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |   |

**Notes:** Groundwater encountered at approximately 15 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 6

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

# BORING LOG

NO.: B-05

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 15 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/14/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION** ∇ :

| Depth (Ft.) | Graphic Log | USCS | Description                                      | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, dry, light brown             |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             |      | Lean CLAY, stiff to very stiff, dry, light brown |         | 22             |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 9           |             |      |  |         | 15             |                 |                 |    |    |            |          |           |            |  |
| 12          |             | CL   |  |         |                | 21              | 111             | 37 | 17 | 1          | 2        | 97        | C          |  |
| 15          |             |      | ... wet  |         | 12             |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |  |         | 12             |                 |                 |    |    |            |          |           |            |  |
|             |             |      | Maximum depth explored approximately 21½ feet    |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 15 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

**PROJECT NO.:** 219024



**FIGURE NO.:** 7

# BORING LOG

NO.: B-06

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 3.25 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/14/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck  
**AT COMPLETION** ▼ : 2.5 ft.

| Depth (Ft.) | Graphic Log | USCS | Description  | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, moist, brown                           |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             | CL   | Lean CLAY, soft (estimated), moist to very moist, brown    |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             |      | ▼ Silty GRAVEL with sand, loose to medium dense, wet, gray |         |                |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      |  |         | 16             |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      |  |         | 12             |                 |                 |    |    |            |          |           |            |  |
| 9           |             | GM   |  |         | 6              | 12              |                 |    |    | 43         | 41       | 16        |            |  |
| 12          |             |      |  |         | 15             |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      |  |         | 24             |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      | Maximum depth explored approximately 16½ feet              |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 2½ feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

**PROJECT NO.:** 219024



**FIGURE NO.:** 8

# BORING LOG

NO.: B-07

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 4 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/14/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION** ∇ :

| Depth (Ft.) | Graphic Log | USCS | Description   | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|---|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |   |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, moist, dark brown                             |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             | SM   | Silty SAND with gravel, medium dense, moist to wet, gray to brown |         | 19             |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      | Silty GRAVEL with sand, loose to medium dense, wet, gray to brown |         | 4              | 13              |                 |    |    | 44         | 30       | 26        |            |  |
| 9           |             | GM   |   |         | 21             |                 |                 |    |    |            |          |           |            |  |
| 12          |             |      | Lean CLAY, stiff, wet, brown                                      |         | 8              | 10              |                 |    |    | 47         | 39       | 14        |            |  |
| 15          |             | CL   |   |         | 9              |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      | Maximum depth explored approximately 16½ feet                     |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 4 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

**PROJECT NO.:** 219024



**FIGURE NO.:** 9

# BORING LOG

NO.: B-08

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 4 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION** ▼ :

| Depth (Ft.) | Graphic Log | USCS | Description  | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, moist, brown                                       |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             |      | Silty SAND with gravel, medium dense to very dense, moist to wet, gray |         |                |                 |                 |    |    |            |          |           |            |  |
| 6           |             |      |  |         | 16             |                 |                 |    |    |            |          |           |            |  |
| 9           |             |      |  |         | 15             |                 |                 |    |    |            |          |           |            |  |
| 12          |             | SM   |  |         | 16             |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      |  |         | 59-9½"         |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      |  |         | 18             | 12              |                 |    |    | 43         | 43       | 14        |            |  |
| 21          |             |      |  |         | 27             |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      | Maximum depth explored approximately 21½ feet                          |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 4 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

PROJECT NO.: 219024



FIGURE NO.: 10

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

# BORING LOG

NO.: B-09

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇: 5 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION** ∇:

| Depth (Ft.) | Graphic Log | USCS  | Description   | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |  |
|-------------|-------------|-------|---|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|--|
|             |             |       |   |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |  |
| 0           |             |       | TOPSOIL, lean clay, moist, dark brown   |         |                |                 |                 |    |    |            |          |           |            |  |  |
| 3           |             |       | Poorly Graded SAND with silt and gravel, loose to very dense, moist to wet, gray to brown |         | 19             |                 |                 |    |    |            |          |           |            |  |  |
| 6           |             |       |   |         | 18             |                 |                 |    |    |            |          |           |            |  |  |
| 9           |             | SP-SM |   |         | 18             |                 |                 |    |    |            |          |           |            |  |  |
| 12          |             |       |   |         | 5              | 12              |                 | 17 | NP | 36         | 53       | 11        |            |  |  |
| 15          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |  |  |
| 18          |             |       | Maximum depth explored approximately 16½  |         | 50-5½"         |                 |                 |    |    |            |          |           |            |  |  |
| 21          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |  |  |
| 24          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |  |  |
| 27          |             |       |   |         |                |                 |                 |    |    |            |          |           |            |  |  |

**Notes:** Groundwater encountered at approximately 5 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 11

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

# BORING LOG

NO.: B-10

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 5.5 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck  
**AT COMPLETION** ∇ :

| Depth (Ft.) | Graphic Log | USCS | Description                                     | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|---|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |   |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, moist, brown                |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             | CL   | Lean CLAY, medium stiff, moist, brown, roots    |         | 7              |                 |                 |    |    |            |          |           |            |  |
| 6           |             | SM   | Silty SAND with gravel, medium dense, wet, gray |         | 17             |                 |                 |    |    |            |          |           |            |  |
|             |             |      | Maximum depth explored approximately 6½ feet    |         |                |                 |                 |    |    |            |          |           |            |  |
| 9           |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 12          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |   |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 5½ feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

**PROJECT NO.:** 219024



**FIGURE NO.:** 12

# BORING LOG

NO.: B-11

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL**  $\nabla$ : 4 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION**  $\nabla$  :

| Depth (Ft.) | Graphic Log | USCS | Description  | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |      | TOPSOIL, lean clay, moist, brown                         |         |                |                 |                 |    |    |            |          |           |            |  |
|             |             | CL   | Lean CLAY, medium stiff (estimated), moist, brown        |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             | GM   | Silty GRAVEL with sand, medium dense, moist to wet, gray |         | 21             | 6               |                 | 21 | NP | 45         | 31       | 24        |            |  |
| 6           |             |      |  |         | 25             |                 |                 |    |    |            |          |           |            |  |
|             |             |      | Maximum depth explored approximately 6½ feet             |         |                |                 |                 |    |    |            |          |           |            |  |
| 9           |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 12          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 4 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 13

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21



# BORING LOG

NO.: B-12

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL ∇ :**

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION ▼ :**

| Depth (Ft.) | Graphic Log | USCS | Description  | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           | [Symbol]    |      | TOPSOIL, lean clay, moist, brown                         |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           | [Symbol]    | SC   | Clayey SAND with some gravel, dense, moist, brown        |         | 35             |                 |                 |    |    |            |          |           |            |  |
| 6           | [Symbol]    | CL   | Sandy Lean CLAY, stiff, moist to very moist, light brown |         | 13             |                 |                 |    |    |            |          |           |            |  |
| 9           |             |      | Maximum depth explored approximately 6½ feet             |         |                |                 |                 |    |    |            |          |           |            |  |
| 12          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 15          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 18          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 24          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 27          |             |      |  |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** No groundwater encountered

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 14

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

# BORING LOG

NO.: B-13

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL** ∇ : 4 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION** ▼ :

| Depth (Ft.) | Graphic Log | USCS  | Description  | Samples | TEST RESULTS   |                 |                 |    |    |            |          |           |            |  |
|-------------|-------------|-------|--|---------|----------------|-----------------|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |       |  |         | Blows per foot | Water Cont. (%) | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 0           |             |       | TOPSOIL, lean clay, moist, dark brown                                  |         |                |                 |                 |    |    |            |          |           |            |  |
| 3           |             | ML    | SILT with sand, medium stiff (estimated), moist, brown                 |         |                |                 |                 |    |    |            |          |           |            |  |
|             |             |       | ∇ Silty Clayey SAND with gravel, very loose to medium dense, wet, gray |         |                | 21              | 97              |    |    | 4          | 13       | 83        | C          |  |
| 6           |             |       |  |         | 6              |                 |                 |    |    |            |          |           |            |  |
| 9           |             | SC-SM |  |         | 2              | 18              |                 | 22 | 6  | 23         | 40       | 37        |            |  |
| 12          |             |       |  |         | 10             |                 |                 |    |    |            |          |           |            |  |
| 15          |             |       | Lean CLAY, medium stiff to stiff, wet, brown                           |         | 8              |                 |                 |    |    |            |          |           |            |  |
| 18          |             |       |  |         |                |                 |                 |    |    |            |          |           |            |  |
| 21          |             | CL    |  |         | 8              | 26              |                 | 32 | 13 |            |          |           |            |  |
| 24          |             |       |  |         |                |                 |                 |    |    |            |          |           |            |  |
|             |             |       | ... thin interbedded sand layer  |         | 7              |                 |                 |    |    |            |          |           |            |  |
| 27          |             |       |  |         |                |                 |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 4 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

**PROJECT NO.:** 219024



**FIGURE NO.:** 15a

# BORING LOG

NO.: B-13

**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot  
**LOCATION:** See Figure 2  
**OPERATOR:** Drill Tech  
**EQUIPMENT:** Truck Drill Rig  
**DEPTH TO WATER; INITIAL  $\nabla$ :** 4 ft.

**PROJECT NO.:** 219024  
**DATE:** 09/15/21  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck

**AT COMPLETION  $\nabla$ :**

| Depth (Ft.) | Graphic Log | USCS | Description                                  | Samples | TEST RESULTS   |   |                 |    |    |            |          |           |            |  |
|-------------|-------------|------|--|---------|----------------|---|-----------------|----|----|------------|----------|-----------|------------|--|
|             |             |      |  |         | Blows per foot | Water Cont. (%)                               | Dry Dens. (pcf) | LL | PI | Gravel (%) | Sand (%) | Fines (%) | Other Test |  |
| 27          |             | CL   | Lean CLAY, medium stiff to stiff, wet, brown |         |                |   |                 |    |    |            |          |           |            |  |
| 30          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 33          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 36          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 39          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 42          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 45          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 48          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 51          |             |      |  |         |                |   |                 |    |    |            |          |           |            |  |
| 54          |             |      |  |         |                | Maximum depth explored approximately 51½ feet |                 |    |    |            |          |           |            |  |

**Notes:** Groundwater encountered at approximately 4 feet

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity/Nitrates/PH
- DS = Direct Shear
- SS = Soluble Sulfates
- UC = Unconfined Compressive Strength

**PROJECT NO.:** 219024



**FIGURE NO.:** 15b
















LOG OF TESTHOLE LOGS.GPJ EARTHTEC.GDT 10/4/21

# LEGEND






**PROJECT:** Harrisville Park  
**CLIENT:** Scott Smoot

**DATE:** 09/15/21  
**LOGGED BY:** J. Balleck



## UNIFIED SOIL CLASSIFICATION SYSTEM

| MAJOR SOIL DIVISIONS  |  | USCS SYMBOL  | TYPICAL SOIL DESCRIPTIONS  |  |
|---|--|--|--|--|
| <b>COARSE GRAINED SOILS</b><br><br>(More than 50% retaining on No. 200 Sieve)   | <b>GRAVELS</b><br><br>(More than 50% of coarse fraction retained on No. 4 Sieve) | CLEAN GRAVELS<br>(Less than 5% fines)  |  GW Well Graded Gravel, May Contain Sand, Very Little Fines   |  |
|   |  | GRAVELS WITH FINES<br>(More than 12% fines)  |  GP Poorly Graded Gravel, May Contain Sand, Very Little Fines |  |
|   |  | <b>SANDS</b><br><br>(50% or more of coarse fraction passes No. 4 Sieve)  | CLEAN SANDS<br>(Less than 5% fines)  |  GM Silty Gravel, May Contain Sand  |
|   |  |  | SANDS WITH FINES<br>(More than 12% fines)  |  GC Clayey Gravel, May Contain Sand |
|   | <b>FINE GRAINED SOILS</b><br><br>(More than 50% passing No. 200 Sieve)           | <b>SILTS AND CLAYS</b><br><br>(Liquid Limit less than 50)  |  SW Well Graded Sand, May Contain Gravel, Very Little Fines   |  |
|   |  |  |  SP Poorly Graded Sand, May Contain Gravel, Very Little Fines |  |
|   |  |  |  SM Silty Sand, May Contain Gravel                            |  |
|   |  | <b>SILTS AND CLAYS</b><br><br>(Liquid Limit Greater than 50)   |  SC Clayey Sand, May Contain Gravel                           |  |
|  CL Lean Clay, Inorganic, May Contain Gravel and/or Sand |  |  |  |  |
|  ML Silt, Inorganic, May Contain Gravel and/or Sand     |  |  |  |  |
|   |  |  OL Organic Silt or Clay, May Contain Gravel and/or Sand    |  |  |
|   |  |  CH Fat Clay, Inorganic, May Contain Gravel and/or Sand     |  |  |
|   |  |  MH Elastic Silt, Inorganic, May Contain Gravel and/or Sand |  |  |
|   |  |  OH Organic Clay or Silt, May Contain Gravel and/or Sand    |  |  |
| <b>HIGHLY ORGANIC SOILS</b>   |  |  PT Peat, Primarily Organic Matter                          |  |  |

### SAMPLER DESCRIPTIONS

-  SPLIT SPOON SAMPLER  
(1 3/8 inch inside diameter)
-  MODIFIED CALIFORNIA SAMPLER  
(2 inch outside diameter)
-  SHELBY TUBE  
(3 inch outside diameter)
-  BLOCK SAMPLE
-  BAG/BULK SAMPLE

### WATER SYMBOLS

-  Water level encountered during field exploration
-  Water level encountered at completion of field exploration

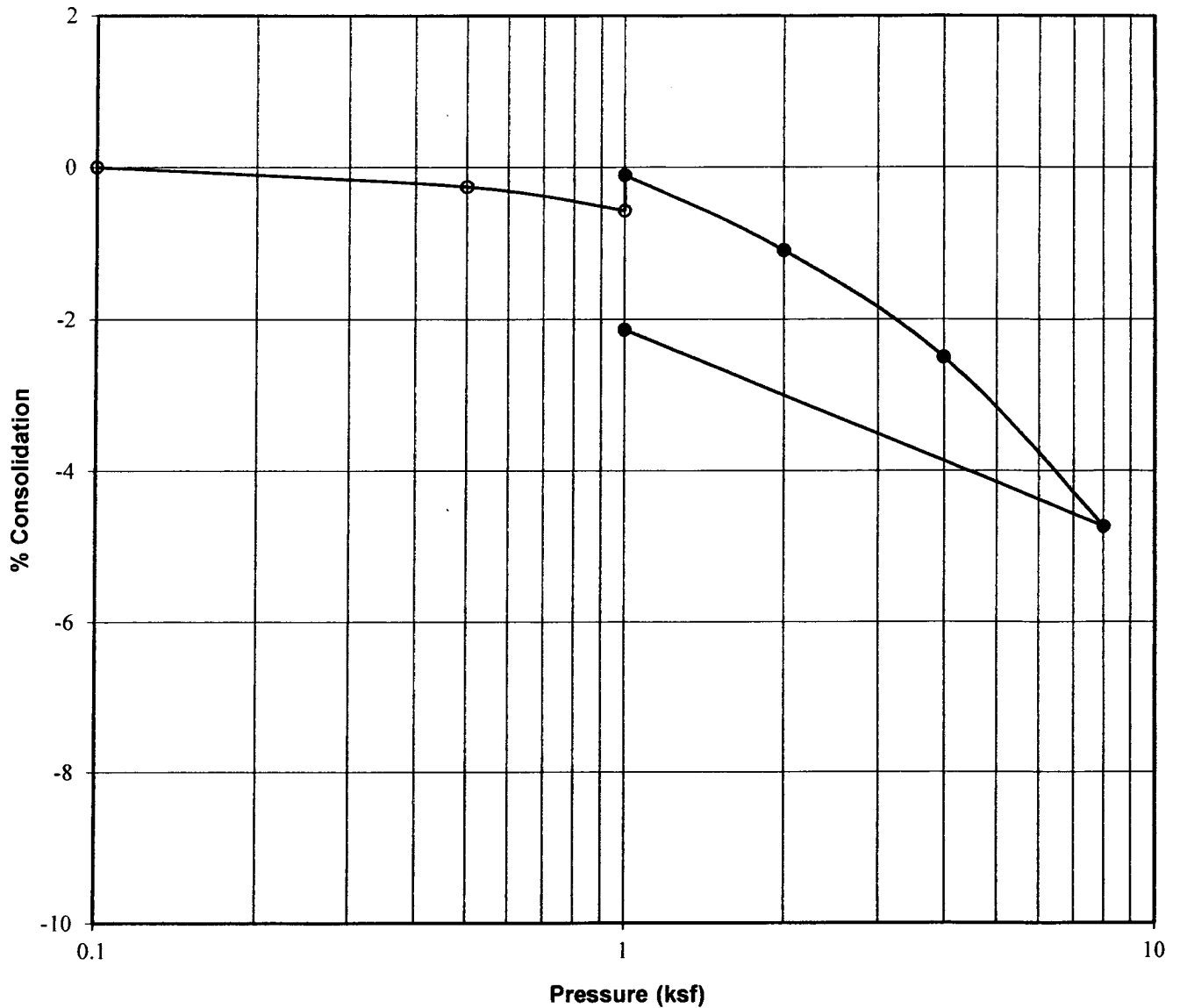
- NOTES:**
1. The logs are subject to the limitations, conclusions, and recommendations in this report.
  2. Results of tests conducted on samples recovered are reported on the logs and any applicable graphs.
  3. Strata lines on the logs represent approximate boundaries only. Actual transitions may be gradual.
  4. In general, USCS symbols shown on the logs are based on visual methods only: actual designations (based on laboratory tests) may vary.

**PROJECT NO.:** 219024



**FIGURE NO.:** 16

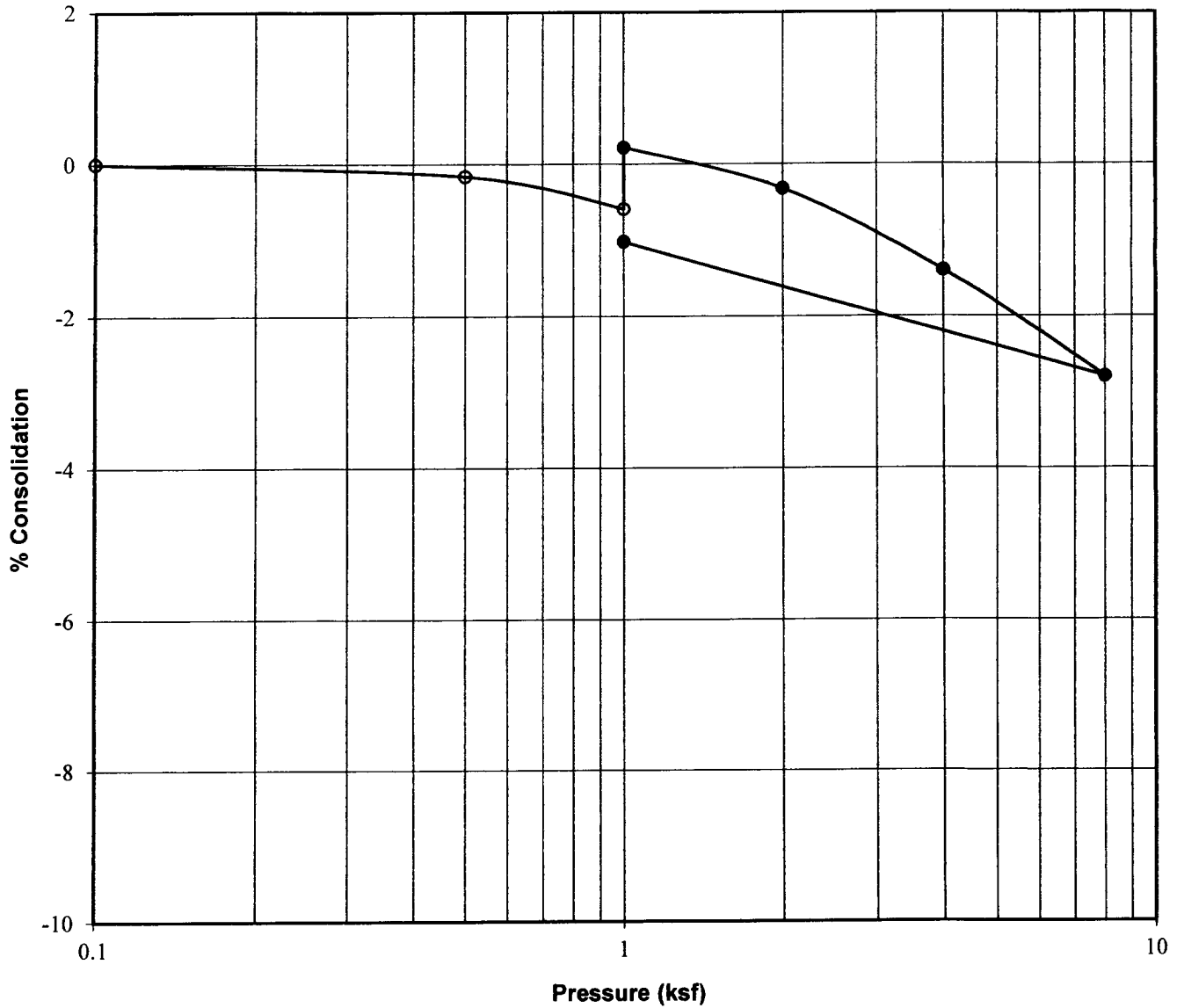
# CONSOLIDATION - SWELL TEST



|                             |                  |
|-----------------------------|------------------|
| <b>Project:</b>             | Harrisville Park |
| <b>Location:</b>            | B-1              |
| <b>Sample Depth, ft:</b>    | 5                |
| <b>Description:</b>         | Shelby           |
| <b>Soil Type:</b>           | Lean CLAY (CL)   |
| <b>Natural Moisture, %:</b> | 20               |
| <b>Dry Density, pcf:</b>    | 114              |
| <b>Liquid Limit:</b>        | 39               |
| <b>Plasticity Index:</b>    | 20               |
| <b>Water Added at:</b>      | 1 ksf            |
| <b>Percent Swell:</b>       | 0.5              |



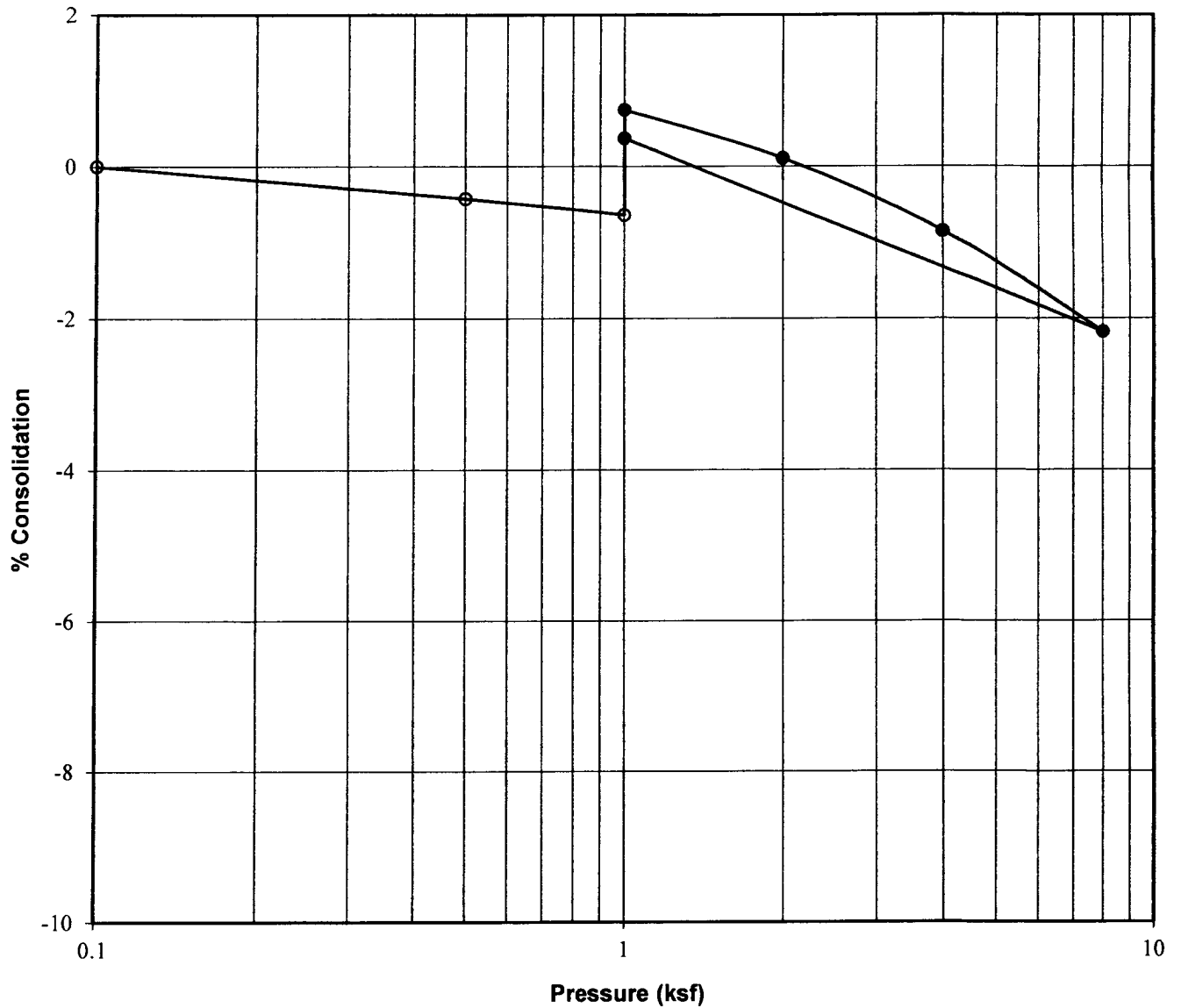
# CONSOLIDATION - SWELL TEST



|                             |                  |
|-----------------------------|------------------|
| <b>Project:</b>             | Harrisville Park |
| <b>Location:</b>            | B-3              |
| <b>Sample Depth, ft:</b>    | 7½               |
| <b>Description:</b>         | Shelby           |
| <b>Soil Type:</b>           | Lean CLAY (CL)   |
| <b>Natural Moisture, %:</b> | 22               |
| <b>Dry Density, pcf:</b>    | 106              |
| <b>Liquid Limit:</b>        | 40               |
| <b>Plasticity Index:</b>    | 20               |
| <b>Water Added at:</b>      | 1 ksf            |
| <b>Percent Swell:</b>       | 0.8              |



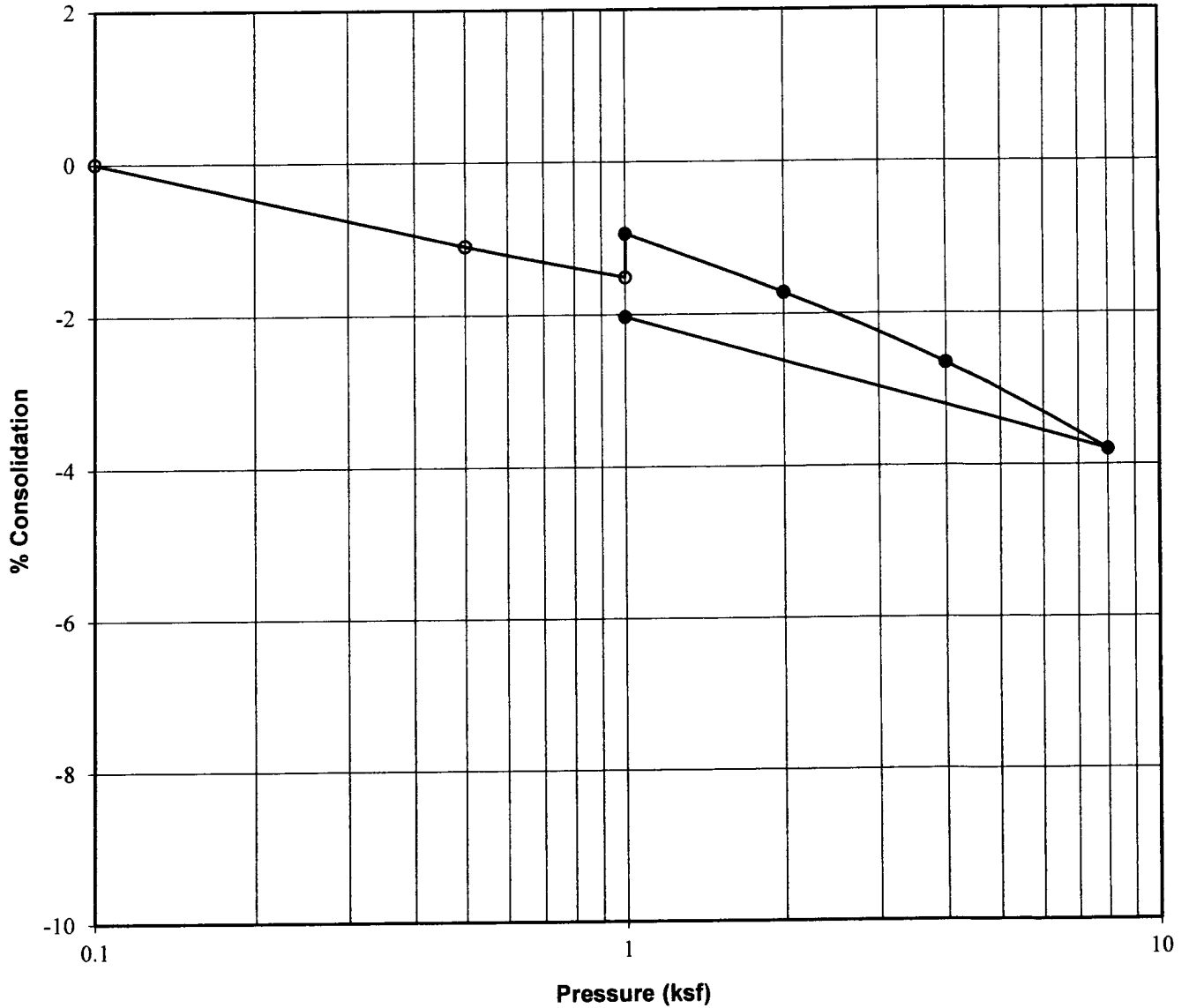
# CONSOLIDATION - SWELL TEST



|                             |                  |
|-----------------------------|------------------|
| <b>Project:</b>             | Harrisville Park |
| <b>Location:</b>            | B-4              |
| <b>Sample Depth, ft:</b>    | 2½               |
| <b>Description:</b>         | Shelby           |
| <b>Soil Type:</b>           | Lean CLAY (CL)   |
| <b>Natural Moisture, %:</b> | 15               |
| <b>Dry Density, pcf:</b>    | 120              |
| <b>Liquid Limit:</b>        | 45               |
| <b>Plasticity Index:</b>    | 24               |
| <b>Water Added at:</b>      | 1 ksf            |
| <b>Percent Swell:</b>       | 1.4              |



# CONSOLIDATION - SWELL TEST

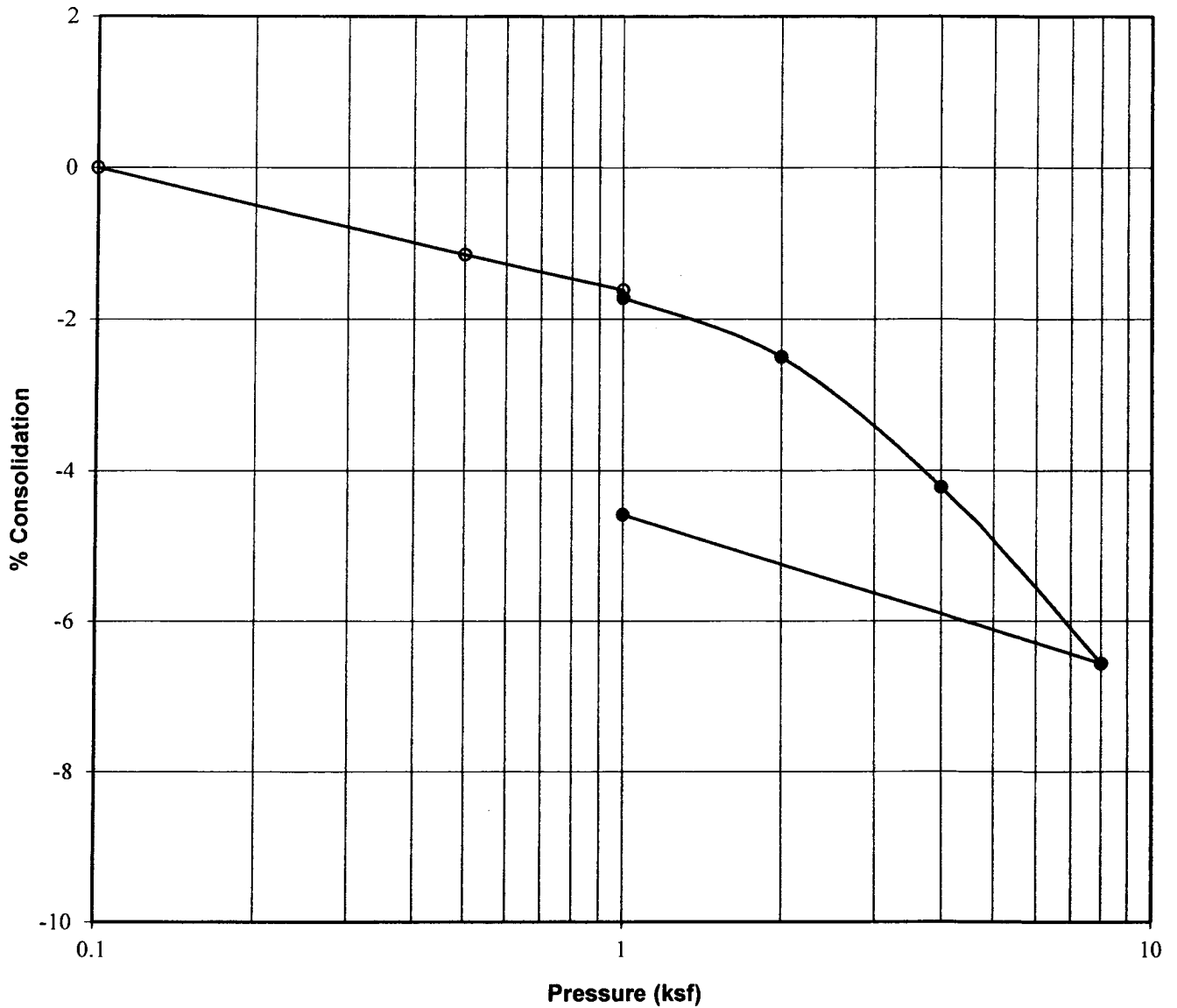


|                             |                  |
|-----------------------------|------------------|
| <b>Project:</b>             | Harrisville Park |
| <b>Location:</b>            | B-5              |
| <b>Sample Depth, ft:</b>    | 10               |
| <b>Description:</b>         | Shelby           |
| <b>Soil Type:</b>           | Lean CLAY (CL)   |
| <b>Natural Moisture, %:</b> | 21               |
| <b>Dry Density, pcf:</b>    | 111              |
| <b>Liquid Limit:</b>        | 37               |
| <b>Plasticity Index:</b>    | 17               |
| <b>Water Added at:</b>      | 1 ksf            |
| <b>Percent Swell:</b>       | 0.6              |





# CONSOLIDATION - SWELL TEST



|                             |                  |
|-----------------------------|------------------|
| <b>Project:</b>             | Harrisville Park |
| <b>Location:</b>            | B-13             |
| <b>Sample Depth, ft:</b>    | 2½               |
| <b>Description:</b>         | Shelby           |
| <b>Soil Type:</b>           | SILT (ML)        |
| <b>Natural Moisture, %:</b> | 21               |
| <b>Dry Density, pcf:</b>    | 97               |
| <b>Liquid Limit:</b>        | ---              |
| <b>Plasticity Index:</b>    | ---              |
| <b>Water Added at:</b>      | 1 ksf            |
| <b>Percent Collapse:</b>    | 0.1              |



# APPENDIX A



# Timpview Analytical Laboratories

A Chemtech-Ford, Inc. Affiliate  
1384 West 130 South Orem, UT 84058 (801) 229-2282



## Certificate of Analysis

Earth Tech, LLC (dba Earthtec)  
Jeremy Balleck  
1497 W 40 S  
Lindon, UT 84042  
DW System # :

Work Order #: 2111209  
PO# / Project Name: 219024  
Receipt: 9/20/21 16:05  
Batch Temp °C: 21.1  
Date Reported: 9/24/2021

Sample Name: 219024 B-2 @ 2.5

Collected: 9/14/21 9:30

Matrix: Solid

Collected By: Jeremy Balleck

| Parameter             | Lab ID #   | Method    | Analysis    |        | MRL | Flags |
|-----------------------|------------|-----------|-------------|--------|-----|-------|
|                       |            |           | Date / Time | Result |     |       |
| Sulfate, Soluble (IC) | 2111209-01 | EPA 300.0 | 9/21/21     | 147    | 16  |       |
| Total Solids          | 2111209-01 | SM 2540G  | 9/24/21     | 61.2   | 0.1 |       |

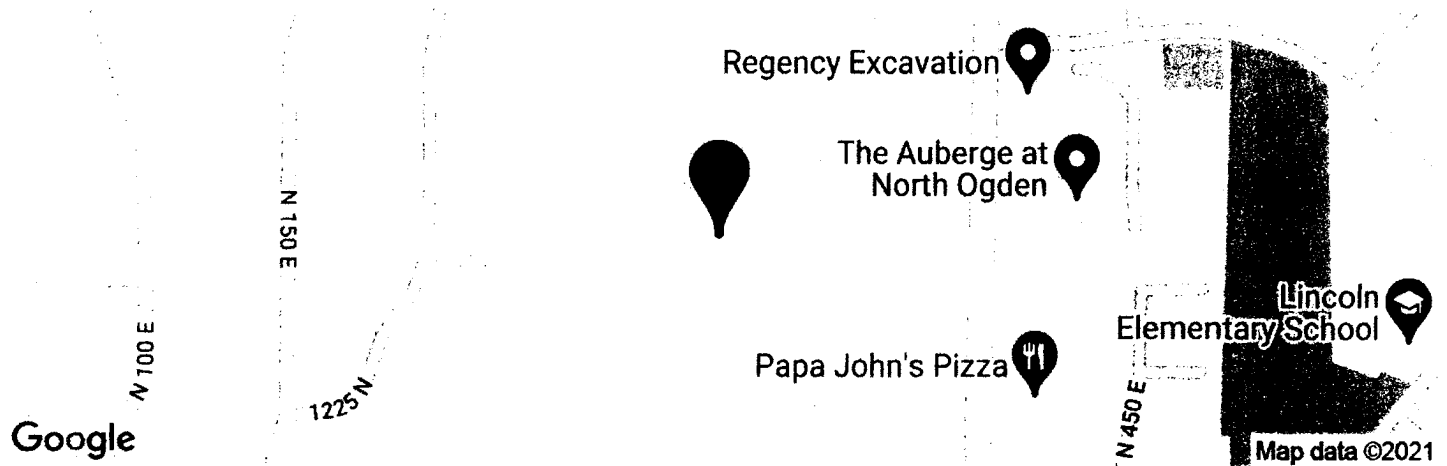
Comment: Harrisville Park

Reviewed by:

Joyce Applegate, Project Manager



Latitude, Longitude: 41.28159425945444, -111.97174160394121



|                                       |                                  |
|---------------------------------------|----------------------------------|
| <b>Date</b>                           | 10/1/2021, 11:25:33 AM           |
| <b>Design Code Reference Document</b> | ASCE7-16                         |
| <b>Risk Category</b>                  | II                               |
| <b>Site Class</b>                     | D - Default (See Section 11.4.3) |

| Type            | Value                    | Description   |
|-----------------|--------------------------|---|
| S <sub>S</sub>  | 1.451                    | MCE <sub>R</sub> ground motion. (for 0.2 second period) |
| S <sub>1</sub>  | 0.533                    | MCE <sub>R</sub> ground motion. (for 1.0s period)       |
| S <sub>MS</sub> | 1.741                    | Site-modified spectral acceleration value               |
| S <sub>M1</sub> | null -See Section 11.4.8 | Site-modified spectral acceleration value               |
| S <sub>DS</sub> | 1.161                    | Numeric seismic design value at 0.2 second SA           |
| S <sub>D1</sub> | null -See Section 11.4.8 | Numeric seismic design value at 1.0 second SA           |

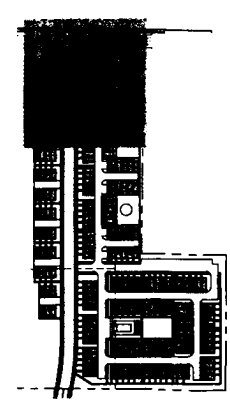
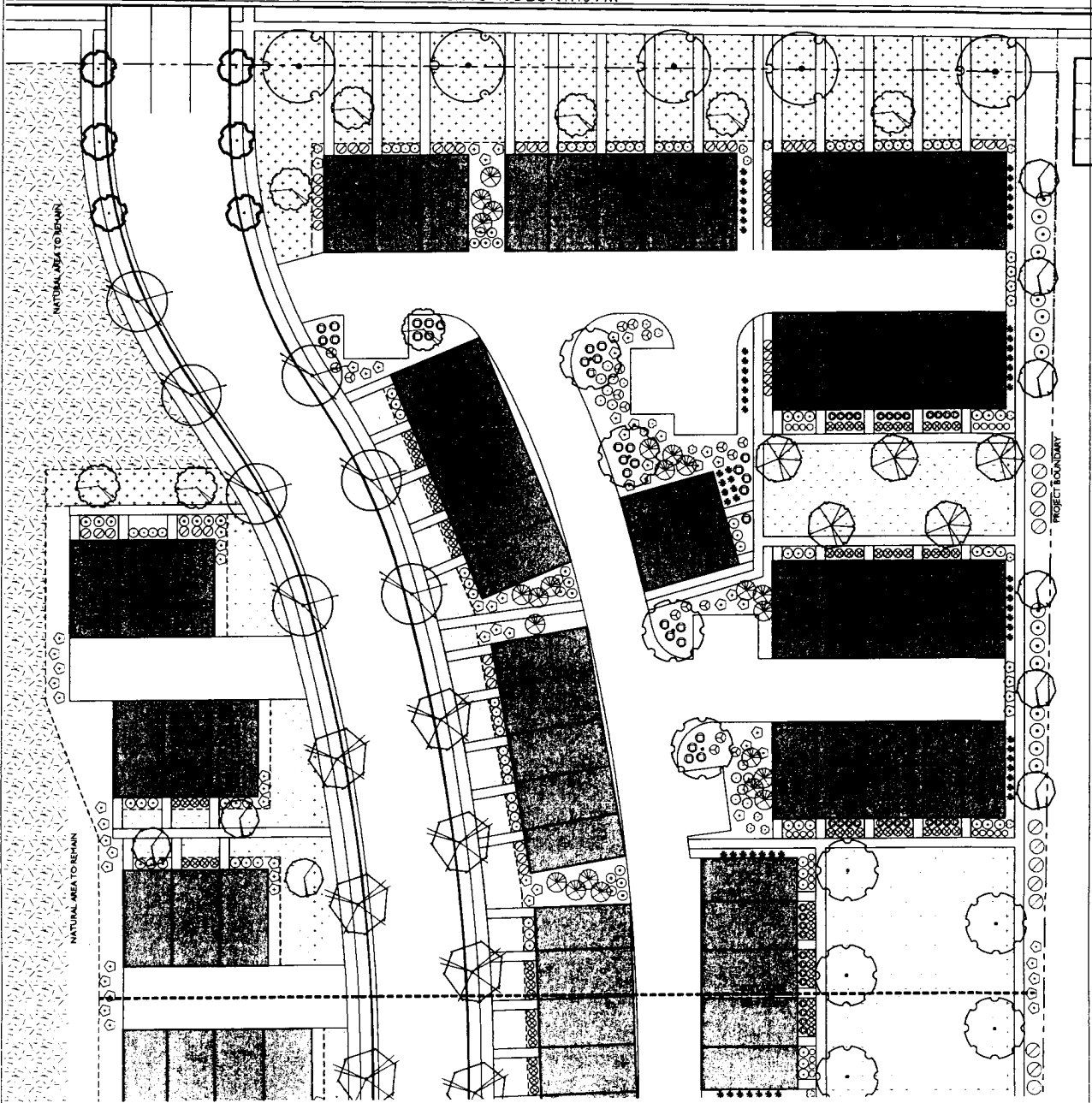
| Type             | Value                    | Description   |
|------------------|--------------------------|---|
| SDC              | null -See Section 11.4.8 | Seismic design category   |
| F <sub>a</sub>   | 1.2                      | Site amplification factor at 0.2 second   |
| F <sub>v</sub>   | null -See Section 11.4.8 | Site amplification factor at 1.0 second   |
| PGA              | 0.658                    | MCE <sub>G</sub> peak ground acceleration   |
| F <sub>PGA</sub> | 1.2                      | Site amplification factor at PGA  |
| PGA <sub>M</sub> | 0.789                    | Site modified peak ground acceleration  |
| T <sub>L</sub>   | 8                        | Long-period transition period in seconds  |
| SsRT             | 1.451                    | Probabilistic risk-targeted ground motion. (0.2 second)                                   |
| SsUH             | 1.684                    | Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration  |
| SsD              | 2.972                    | Factored deterministic acceleration value. (0.2 second)                                   |
| S1RT             | 0.533                    | Probabilistic risk-targeted ground motion. (1.0 second)                                   |
| S1UH             | 0.615                    | Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration. |
| S1D              | 1.251                    | Factored deterministic acceleration value. (1.0 second)                                   |
| PGAd             | 1.161                    | Factored deterministic acceleration value. (Peak Ground Acceleration)                     |
| C <sub>RS</sub>  | 0.861                    | Mapped value of the risk coefficient at short periods                                     |
| C <sub>R1</sub>  | 0.866                    | Mapped value of the risk coefficient at a period of 1 s                                   |

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LANDSCAPE SCHEDULE

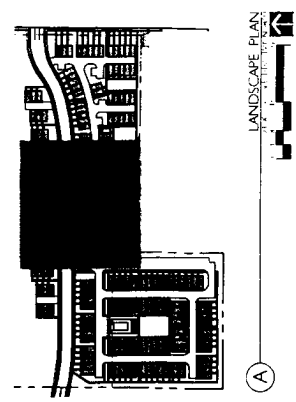
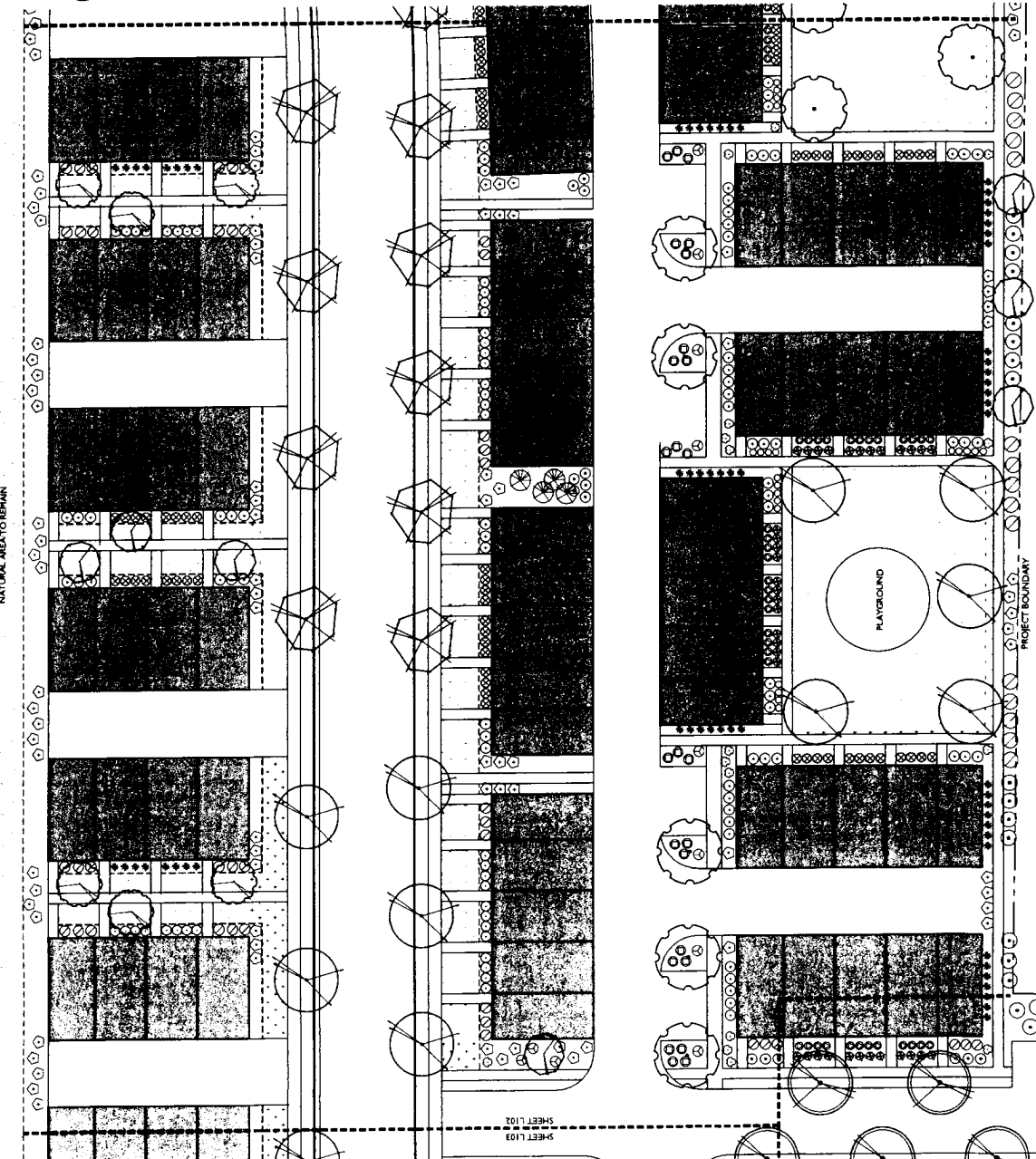
| SYMBOL | PLANT NAME        | PLANT HEIGHT | PLANT SPACING |
|--------|-------------------|--------------|---------------|
| 19     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 20     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 21     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 22     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 23     | Arbutus Menziesii | 10'          | 10' x 10'     |
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| 97     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 98     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 99     | Arbutus Menziesii | 10'          | 10' x 10'     |
| 100    | Arbutus Menziesii | 10'          | 10' x 10'     |



LANDSCAPE PLAN  
 SCALE: 1" = 20'

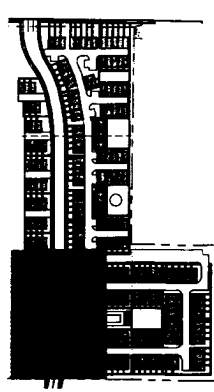
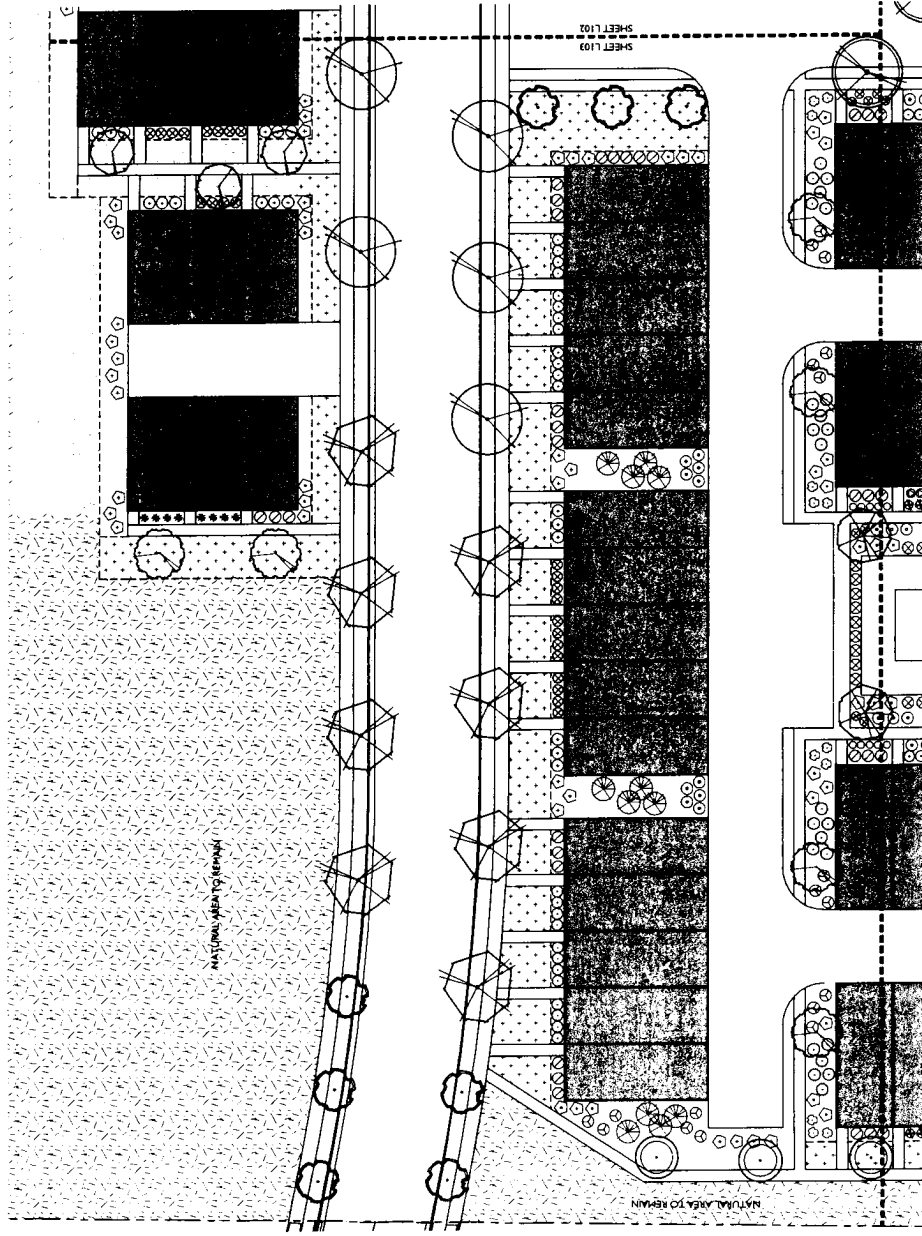
LANDSCAPE SCHEDULE

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| 2   | (Symbol) | SPRING WATER | SPRING WATER | 2   |
| 3   | (Symbol) | SPRING WATER | SPRING WATER | 3   |
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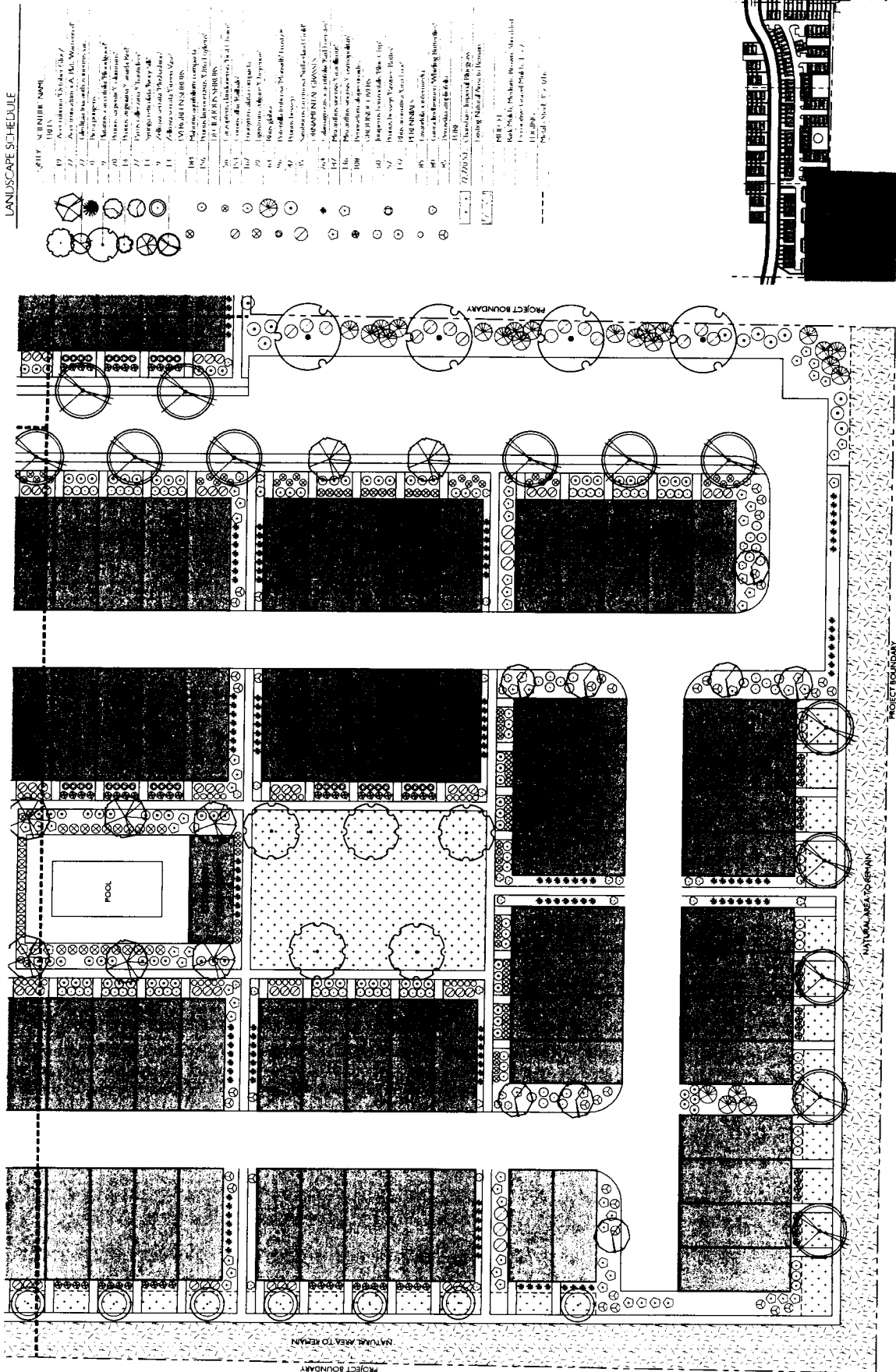
LANDSCAPE SCHEDULE

| NO. | SYMBOL   | DESCRIPTION | QUANTITY |
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LANDSCAPE PLAN  
 L103





LANDSCAPE SCHEDULE

| PLANT NUMBER | PLANT NAME            |
|--------------|-----------------------|
| 1            | Asplenium Platyneuron |
| 2            | Asplenium Platyneuron |
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