Agenda

RICHLAND PLANNING COMMISSION MEETING NO. 6-2013

Richland City Hall - 505 Swift Boulevard - Council Chamber

WEDNESDAY, June 26, 2013

7:00 p.m.

COMMISSION MEMBERS: Marianne Boring, Chair; James Utz, Vice-Chair; Debbie Berkowitz; Clifford Clark; Stanley Jones; Carol Moser; Kent Madsen, Amanda Wallner and James Wise

LIAISONS: Rick Simon, Planning and Development Services Manager
Phil Lemley, City Council

Regular Meeting, 7:00 p.m.

Welcome and Roll Call

Approval of the Agenda

Approval of May 22, 2013 Meeting Minutes

Public Comments

Public Hearing Explanation

New Business – Public Hearings

1. APPLICANT: ROCKWORTH COMPANIES (M2013-104)*
Request: **APPROVAL OF SITE PLAN TO CONSTRUCT A 252 UNIT APARTMENT COMPLEX ON 24.78 ACRES KNOWN AS THE SUNDANCE APARTMENTS.**
Location: **WEST OF GEORGE WASHINGTON WAY, SOUTH OF HANFORD STREET AND NORTH OF SPENGLER ROAD.**

***Quasi-Judicial Hearing**

Communications

Commission/Staff/Liaison Comments

Adjournment

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MINUTES
RICHLAND PLANNING COMMISSION MEETING No. 5-2013
Richland City Hall – 550 Swift Boulevard – Council Chamber
WEDNESDAY, May 22, 2013
7:00 p.m.

Call to Order:

Chairman Boring called the meeting to order at 7:00 p.m.

Attendance:

Present: Chairman Boring, Commission Members Berkowitz, Clark, Jones, Moser, Wallner, Utz and Wise. Also present were City Council Liaison Phil Lemley, Transportation & Development Manager Jeff Peters, Deputy City Manager Bill King, Parks and Recreation Director Joe Schiessl, Development Services Manager Rick Simon, Senior Planner Jeff Rolph, Executive Assistant Pam Bykonen and Recorder Penny Howard.

Approval of Agenda:

Chairman Boring presented the May 22, 2013 meeting agenda for approval.

The agenda was approved as presented.

Approval of Minutes

Chairman Boring presented the meeting minutes of the April 24, 2013 regular meeting for approval.

A motion was made by Commissioner Jones and seconded by Commissioner Berkowitz to approve the meeting minutes of the April 24, 2013 regular meeting as presented.

The motion carried, 8-0.

Public Comment

Chairman Boring asked for public comment on any item not on the agenda. Seeing none, she closed this portion of the meeting.

PUBLIC HEARING

Public Hearing Explanation: **Ms. Howard** explained the public hearing notice and appeal process and asked Commissioners to identify any conflicts of interest, ex-parte contact or any other appearance of fairness issues. **Commissioner Jones** disclosed a conflict of interest with New Business agenda item 1 and recused himself. **Commissioner Wise**, **Commissioner Moser**, **Commissioner Berkowitz** each disclosed knowledge of one of the applicants but did not believe that relationship would impact their judgment. There were no objections to these disclosures.

New Business

1. **FREDERICK BOND, EDWARD SMITH & BARBARA CHEN, MIKE & MONA SHEY AND CHARLES & SHU-MEI LI – Request for approval of shoreline development plans to allow for the construction of four private docks (SM1-2013)**

Commissioner Jones was recused.

Mr. Rolph reviewed the staff report for the request to construct private boat docks on the Columbia River adjacent to their property located at 35 Vista Court, 2528 and 2550 Harris Avenue and 1 Sprout Road. As the fair market value of each of the proposed docks exceeds $10,000, they are not exempt from the permitting requirements of the State Shoreline Management Act.

Three of the docks would replace existing docks that do not meet the new U.S. Army Corps of Engineering guidelines - one dock would be new construction. The proposed private boat docks are considered a permitted use in Urban Shoreline areas pursuant to RMC Section 26.21.010.

The City has no plans to develop any formal paths to access the docks and the Parks and Recreation Commission determined the proposed docks would have no impact on existing or planned parks, trails, open spaces or recreation areas.

Two pilings would be used to anchor each dock unless the dock design engineer of record determines that additional piling is required to meet the Corps of Engineers dock anchoring criteria. A maximum of four piles may be used.

Staff recommends approval of the shoreline development plans to allow for the construction of private docks along the shoreline of the Columbia River between Ferry Road and Sprout Road.

Chairman Boring opened the Public Hearing at 7:12 PM. Seeing none, she closed the Public Hearing at 7:13 PM.

Discussion:
Vice-Chair Utz asked staff for additional information regarding the pilings. **Mr. Simon** explained that would be addressed while updating the Shoreline Master Program and that some language would be changed to reflect the Corps standards.

Commissioner Berkowitz asked about the mitigation plan. **Mr. Rolph** explained that the archaeological permit would be required from the Corps as well as mitigation of any native vegetation that is removed during construction. The docks will not affect public access to the area.

Commissioner Moser inquired about the concrete steps requiring a real estate license from the U.S. Army Corps of Engineers. **Mr. Rolph** explained that there is a separate review required by the Corps for such steps.

Commissioner Moser asked how the co-use of one of the docks would be administered. **Mr. Rick Bond** stated that the community dock would be jointly owned by three families with a community dock agreement. If a change in ownership were necessary, the community dock agreement would be revised at that time. The agreement also calls for joint maintenance of the dock.

A motion was made by Commissioner Moser and seconded by Commissioner Berkowitz that the Planning Commission concur with the findings and conclusions set forth in Staff Report SM1-2013 and approval of Shoreline Management Development Plans to allow for construction of four private docks.

Called for a vote: Commissioner Berkowitz: Yes; Commissioner Clark: Yes; Commissioner Moser: Yes; Commissioner Wallner: Yes; Vice-Chairman Utz: Yes; Commissioner Wise: Yes; Chairman Boring: Yes.

MOTION CARRIED 7-0.

New Business – Other Items

1. CITY OF RICHLAND – Approval to surplus a 2,956 square foot building on a .44 acre site of city owned property at 507 Wright Avenue (M2013-102)

Mr. Schiessl reviewed the staff report for the proposed surplus of 507 Wright Avenue commonly known as the 'Wright Street Fire Station'. The facility, constructed in 1954, is used by a parent cooperative for approximately 7.5 hours per week. The City's current Community Center can accommodate these activities.

The building has not had any significant upgrades and would require an investment of approximately $300,000 ($100/square foot) to prepare the structure for new activities. These funds are not included in the City's Capital Improvement Program.

As there is not a current or anticipated future public need for the Wright Avenue property, and a local private Montessori school has expressed an interest in a lease to purchase agreement, the staff recommends that the City Council declare the property as excess to our current and future needs.

Chairman Boring opened the Public Hearing at 7:26 PM and asked for any comments from the public on this item. Seeing none, she closed the Public Hearing at 7:26 PM.

Discussion:
Commissioner Clark asked about the use of the park adjacent to the property and if consideration had been given to expanding the park. **Mr. Schiessl** explained that there is existing play equipment from the 1950's on the property that does not meet current safety standards and the Parks Commission did not see a need to expand the park.

Commissioner Wise asked why the City wants to designate the property as surplus rather than holding it for a future need. **Mr. Schiessl** explained that the Facilities department has been analyzing the current system and a potential leaser/buyer came forward during that process.

Commissioner Berkowitz commented on the child-friendly use of the Wright Avenue facility and asked if the Community Center would be able to be used in a similar fashion. **Mr. Schiessl** explained the Community Center crafts room has concrete floors, sinks and laboratory grade countertops that are conducive to child use. He also listed the positive benefits of a better park, a more modern facility, and restrooms that meet current standards. He informed the Commission that as a transitory space, it would be shared with other users. Commissioner Berkowitz also asked if surplusing the property was the only way for Montessori school to update the facility for their use. It was confirmed that in order for the space to be viable for another user, a significant amount of work would be necessary and therefore, ownership.

Chairman Boring pointed out that a lease-to-purchase option can only be offered if the facility is surplused first. **Mr. Schiessl** concurred.

Commissioner Clark asked who would pay for the upgrades in order for the building to meet code requirements. **Mr. Schiessl** stated the City would not pay for those upgrades, but there are arrangements with some organizations to improve property as part of their market rate rent. The value of improvements made at the location is in lieu of rent such as improvements made by the Fast pitch Softball Association to the Columbia Playfields. The same discussion is in process with the Montessori school so that if the sale were not to happen, the City would still benefit from the agreement. The Commission was assured that any such improvements would be done with the proper building permits.

Commissioner Jones inquired about the process for surplusing a property. **Mr. Schiessl** explained that the Commission was in step one of a two-step process. Step

one determines if the City has a need for the property, which it does not. Step two determines the method of disposition (lease or sell).

Vice-Chair Utz asked for zoning information for the property. **Mr. Schiessl** advised that it is zoned for Parks and Public Facilities with a Comprehensive Plan Designation of Open Space; a private school is an allowable use within that designation. Vice-Chair Utz stated his support for a school environment at the Wright Avenue location. He expressed concern on the valuation of the property and asked if a long-term lease had been considered so that the property might be available for future use. Mr. Schiessl explained that Facilities did not foresee a future use and assured the Commission that the property would be sold at market value at the time of sale.

Chairman Boring agreed that the property appeared to be underutilized and there would be a large expense in bringing the property up to date. Her biggest concern was an appropriate location for the valuable parenting Co-Op.

Commissioner Clark asked at what point in time the lease price agreement was fixed. **Mr. Schiessl** stated that a multi-year lease would be fixed at the time of the agreement with annual inflators built in. If it moved toward a sale, the property would be sold at market value at the time of sale.

A motion was made by Commissioner Wallner and seconded by Commissioner Wise that the Planning Commission concurs with the findings and conclusions set forth in Staff Report SMS1-2013.

Called for a vote: Commissioner Berkowitz: Yes; Commissioner Clark: Yes; Commissioner Jones: Yes; Commissioner Moser: Yes; Vice-Chairman Utz: Yes; Commissioner Wallner: Yes; Commissioner Wise: Yes; Chairman Boring: Yes.

MOTION CARRIED 8-0.

2. CITY OF RICHLAND – Request approval of proposed amendments to the City of Richland Transportation Improvement Program 2014-2019 (M2013-103)

CITY OF RICHLAND – Request approval of proposed amendments to the City of Richland Transportation Improvement Program 2014-2019 (M2013-103)

Mr. Peters reviewed the staff report for the request to approve the 2014-2019 Six-year Transportation Improvement Plan (TIP) in order to comply with the Revised Code of Washington. The projects that have been added from the previous TIP are: 1) Duportail Street/Wright Avenue Intersection Improvements, 2) Duportail Street Extension, 3) Gage Boulevard Improvements, and 4) Steptoe Street/Tapteal Drive Intersection Improvements. The projects that have been deleted are: 1) Research District Sidewalk

Project, and 2) Citywide Safety Improvements. Mr. Peters discussed the annual process used to amend the TIP and offered to answer any questions about the projects listed.

Commissioner Wise discussed Steptoe Street and the crosswalks in the area that have not been re-striped since the project occurred. **Mr. Peters** confirmed that the intersection is the City of Richland's responsibility; however some of those intersections are shared with Kennewick. The signals were not installed initially, but Public Works is working with the City of Kennewick to get the crosswalks signaled and operating this year. A major portion of the equipment is already waiting in a warehouse. Commissioner Wise reiterated his concern for the safety of pedestrians in that area.

Vice-Chairman Utz asked about Englewood hill and why it was not reflected on the TIP. **Mr. Peters** stated that it is being built right now and the project was funded by impact fees, so it did not need to be included in the TIP.

Commissioner Berkowitz discussed sidewalk placement along George Washington Way. **Mr. Peters** assured all that the sidewalk would be placed away from the street. The City and Battelle, who donated the right of way for the pathway, share the common goal of a safe and pleasant walkway.

Commissioner Berkowitz asked for details on the Duportail Street connections at Thayer Drive, Wellhouse Loop, Wellsian Way and Stevens Drive. **Mr. Peters** described the Stevens Drive Extension Project and informed all that no buildings would be affected. Commissioner Berkowitz expressed concern about the impact to existing properties, park land and vegetation. The Duportail Street Extension is not yet fully planned or funded according to Mr. Peters and those suggestions would be considered. Commissioner Berkowitz also brought up the Rachel Road area and its possible impact to the Amon Basin. Championing city parks and trails, she expressed her concern over the possible impacts of the projects.

Commissioner Moser inquired about the process of the TIP approval and suggested the TIP be presented in a Planning Workshop with improved maps. The question was raised about the larger budget for the Gage Boulevard project versus that of the George Washington Way project. **Mr. Peters** explained that there would be a significant amount of road reconstruction, retaining walls, storm drains, and street lights necessary to complete the section of road up to Morency Drive.

Commissioner Moser inquired about the Safe Routes to School Program that is on the TIP. **Mr. Peters** informed the Commission that staff requested grants, but have not been successful to date. They will continue to apply for grants as they become available. In order to have a program in place, the school must demonstrate their commitment to the plan to obtain funding. To date, there have not been any schools in the area utilizing this program.

Commissioner Clark discussed the planned intersection of Wellsian Way, Duportail Street and Stevens Drive as well as general road repairs. **Mr. Peters** informed that a pavement management plan will be in a Council workshop next month. One goal of the plan is to lessen the amount of cracks that need to be filled. A road review done by outside consultants was recently completed, is under review and will assist in that endeavor.

Commissioner Berkowitz inquired about the Logston Boulevard extension and its impact on nearby wetlands. **Mr. King** explained that the plan was recently amended to include a large scale development with rail access and that change eliminated any impact to wetlands.

Commissioners Clark, Moser, Chairman Boring and Mr. Peters briefly discussed funding and use of fees for projects in the Transportation Improvement Program.

Commissioners Clark, Berkowitz and Vice-Chairman Utz expressed their desire to review any future changes to the TIP in a workshop so their concerns can be addressed in a less formal setting. **Mr. King** and **Mr. Peters** agreed that a workshop discussion would be beneficial and assured the Commission that TIP projects could be included in future workshop agendas.

A motion was made by Vice-Chair Utz and seconded by Commissioner Jones that the Planning Commission concur with the findings and conclusions set forth in staff report M2013-103 and forward a recommendation to the City Council to approve the 2014-2019 Six-Year Transportation Improvement Program.

An amending motion was made by Commissioner Moser and seconded by Commissioner Wise to delete project number 25 (Duportail Street Extension), project 31 (Rachel Road to Steptoe Street Extension) and project 32 (Bellerive Drive Extension).

Called for a vote on the amendment: Commissioner Berkowitz: Yes; Commissioner Clark: Yes; Commissioner Jones: Abstain; Commissioner Moser: Yes; Vice-Chairman Utz: No; Commissioner Wallner: Yes; Commissioner Wise: Yes; Chairman Boring: No.

MOTION CARRIED 5-2, with 1 abstaining.

Called for a vote on the motion as amended: Commissioner Berkowitz: Yes; Commissioner Clark: Yes; Commissioner Jones: Yes; Commissioner Moser: Yes; Vice-Chairman Utz: Yes; Commissioner Wallner: Yes; Commissioner Wise: Yes; Chairman Boring: Yes.

MOTION CARRIED 8-0.

Communications:

Mr. Simon

- Reminded the Commission of the next workshop on June 12 with the annual citywide tour. He asked for any points of interest to be added to the route

Mr. King

- Shared information from a Washington Insurance Authority that caution communities about creating liabilities. The Commission was encouraged to express concerns in the form of a concern with a request for evaluation by the staff. There will be some training available later this year.

Commissioner Jones

- Suggested including the Triton Sail in North Richland on the citywide tour.

Commissioner Berkowitz

- Suggested including some of the TIP streets that have been discussed.
- Good walking shoes were recommended.

Commissioner Moser

- Concurred with Commissioner Berkowitz' suggestion to view the TIP streets.
- Suggested maps for future TIP discussions that would provide a better representation of the project configurations.

Commissioner Clark

- Suggested a change in structure to allow a quarterly discussion of the TIP so it might be discussed as it moves forward rather than at a workshop.

Vice-Chair Utz

- Concurred with Commissioner Clark that the TIP process needs improvement.
- Suggested that conversations held throughout the year would be more beneficial to the group rather than one annual conversation.

Chairman Boring

- Stated that she is looking forward to the citywide tour.

ADJOURNMENT:

The May 22, 2013, Richland Planning Commission Regular Meeting 5-2013 was adjourned at 9:03 PM. The next regular meeting of the Planning Commission will be held on June 26, 2013.

PREPARED BY: Penny Howard, Recorder, Planning & Development

REVIEWED BY: _____

Rick Simon, Secretary
Richland Planning Commission

Richland

CITY OF RICHLAND

COMMUNITY & DEVELOPMENT SERVICES

Current Planning PHONE 509/942-7794 FAX 509/942-7764

State Environmental Policy Act Checklist

File Number: _____

Purpose of Checklist

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Applicant Instructions

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answers, or if a question does not apply to your proposal, write *do not know* or *does not apply*. Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have any problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonable related to determining if there may be significant adverse impact.

Use of Checklist for Nonproject Proposals

Complete this checklist for nonproject proposals, even though questions may be answered *does not apply*. In addition, complete the **Supplemental Sheet for Nonproject Actions (Part D)**.

For nonproject actions, the references in the checklist to the words *project, applicant,* and *property* or *site* should be read as *proposal, proposer,* and *affected geographic area*, respectively.

Part A • Background			
Name of proposed project, if applicable: Rockworth Companies			
Applicant's Name/Contact Person Steve Broadbent			Phone 801-501-0727
Address 9980 S. 300 W., Ste 310	City Sandy	State UT	Zip 84070

Date Checklist Prepared 5-13-13	Agency Requesting Checklist City of Richland

Proposed timing or schedule (including phasing, if applicable)

Phase 1 construction beginning fall 2013, Phases 2,3 and 4 TBD based upon occcupancy/need

If you have future plans for additions, expansion, or further activity related to or connected with this proposal, please explain:

Future commercial development of about 3.07 acres at the NE corner of the project area.

List any environmental information you know about that has been prepared, directly related to this proposal:

Wetland Delineation Report dated December 2012

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? Yes ☐ No ☒ If yes, please explain:

None known

Are you aware of any government approval or permits that will be needed for your proposal? Yes ☒ No ☐ If known, please explain:

Building Permit, Right of Way Permit, Construction Stormwater General Permit, Site Plan Approval, Binding Site Plan

Give a brief description of your proposal, including the proposed uses and size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal, you need not list them now.

Construct an apartment complex consisting of approximately of 252 units on 14 acres. Future commericial property to be developed on approximately 3.07 acres.

Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, section, township, and range, if known. If a proposal will occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if available. While you should submit any plans required by the agency, you are required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Site sits between Hanford Street and Spengler Road and just west of George Washington Way in Richland, WA. Tax Parcel # 1-2608-200-0001-004.

TO BE COMPLETED BY APPLICANT	For Agency Use Only
Part B • Environmental Elements	
Earth	
General description of the site (check one): Flat ☐ Hilly ☐ Mountainous ☐ Rolling ☒ Steep Slopes ☐ Other: Site has both rolling and steep slopes. Steep slopes are to be undeveloped	
What is the steepest slope on the site (approximate percent slope)? 15%	
What general types of soils are found on the site (for example, clay, gravel, muck, peat, sand)? Sand and gravels.	
If you know the classification of agricultural soils, specify them and note any prime farmland: NA	
Are there surface indications or history of unstable soils in the immediate vicinity? Yes ☐ No ☒ If so, describe:	
Describe the purpose, types, and approximate quantities of any filling or grading proposed, and indicate source of fill: Site will be regraded to facilitate the development. On-site materials to be used for fills. Estimate cut/fill approximately	
Could erosion occur as a result of clearing, construction, or use? Yes ☒ No ☐ If so, generally describe: Yes, wind and water erosion could occur. Erosion control measures to be added during construction.	
Could erosion occur as a result of clearing, construction, or use: Yes ☐ No ☐ If so, generally describe:	
About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? 50% by asphalt and buildings	

Air	**For Agency Use Only**
Check the types of emissions to the air that would result from the proposal during construction and when the project is completed: Automobile ☒ Dust ☒ Industrial Wood Smoke ☐ Odors ☐ If any, generally describe and give approximate quantities, if known. Dust during construction and general construction equipment emissions.	
Are there any off-site sources of emissions or odor that may affect your proposal? Yes ☐ No ☒ If so, generally describe:	
Proposed measures to reduce or control emissions or other impacts to air, if any: Compliance with Benton County Clean Air Authority	
Water	
Surface	
Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? Yes ☒ No ☐ If yes, describe type and provide names: An unamed artificial wetland is located on the NE portion of the property.	
If appropriate, state what stream or river it flows into: None	
Will the project require any work over, in, or adjacent to (within 200-feet) of the described waters? Yes ☒ No ☐ If yes, please describe and attach available plans: Yes. Development of the apartment complex will occur to the west of the wetland area.	
Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected, indicating the source of fill materials: None anticipated.	
Will the proposal require surface water withdrawals or diversions? Yes ☐ No ☒ Give general description, purpose, and approximate quantities if known:	

Does the proposal lie within a 100-year floodplain? Yes ☐ No ☒ If so, note the location on the site plan.	**For Agency Use Only**
Does the proposal involve any discharges of waste materials to surface waters? Yes ☐ No ☒ If so, describe the type of waste and anticipated volume of discharge	
Ground	
Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities, if known. None anticipated	
Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage, industrial, containing the following chemicals....: agricultural, etc.). None	
Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve: NA	
Water Runoff (including storm water)	
Describe the source of runoff (including storm water), and method of collection and disposal, if any (including quantities, if known). Storm runoff to be collected and either infiltrated into the existing soils and discharged to the wetland area.	
Will this water flow into other waters? Yes ☒ No ☐ If so, generally describe: A portion of the on-site stormwater will be discharged to the wetland area. Stormwater to go through oil-water separator prior to discharge.	
Could waste materials enter ground or surface waters? Yes ☒ No ☐ If so, generally describe: It is possible; however, stormwater system to be designed in accordance with Stormwater Management Manual for Eastern WA.	

Proposed measures to reduce or control surface, ground, and runoff water impacts, if any: Facilities to be designed in accordance with the SWMMEW. General parking lot sweeping and cleaning and maintenance of stormwater facilities.	**For Agency Use Only**
Plants	
Check the types of vegetation found on the site: Deciduous tree: alder ☐ aspen ☐ maple ☒ other ☐ (list) Herbaceous vegetation, such as grasses and annual weeds, and a few scattered shrubs or trees.	
Evergreen tree: cedar ☐ fir ☐ pine ☐ other ☐ (list) None	
Shrubs ☒ grass ☐ pasture ☐ crop or grain ☐	
West soil plants: bulrush ☐ buttercup ☐ cattail ☐ skunk cabbage ☒ other ☐ (list)	
Water plants: eelgrass ☐ milfiol ☐ water lily ☐ other types of vegetation ☐ (list) None	
What kind and amount of vegetation will be removed or altered: Existing vegetation to be removed and replaced with new except for areas identified not be disturbed and excluding wetland area.	
List threatened or endangered species known to be on or near the site: None known.	
Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: Low maintenance and arid type plantings	
Animals	
Check any birds and animals which have been observed on or near the site or are known to be on or near the site: Birds: eagle ☐ hawk ☐ heron ☒ songbirds ☒ other ☐ (list)	
Mammals: bear ☐ beaver ☐ deer ☐ elk ☐ other ☐ (list) None known	
Fish: bass ☐ herring ☐ salmon ☐ shellfish ☐ trout ☐ other ☐ (list) None	
List any threatened or endangered species known to be on or near the site: None	
Is the site part of a migration route? Yes ☒ No ☐ If so, explain: This general area of the Columbia River is considered to be part of the Pacific fly way migration route	
Proposed measures to preserve or enhance wildlife, if any: Identified wetland to remain undisturbed.	

Energy and Natural Resources	**For Agency Use Only**
What type(s) of energy will be used to meet the completed project's energy needs: Electrical ☒ Natural Gas ☒ Oil ☐ Solar ☐ Wood Stove ☐ Describe whether it will be used for heating, manufacturing, etc. Heating and mechanical purposes	
Would your project affect the potential use of solar energy by adjacent properties? Yes ☐ No ☒ If so, generally describe:	
What kind(s) of energy conservation features are included in the plans of this proposal? None	
List other proposed measures to reduce or control energy impacts, if any: None	
Environmental Health	
Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? Yes ☐ No ☒ If yes, describe:	
Describe special emergency services that may be required: Only those provided by City services.	
Proposed measures to reduce or control environmental health hazards, if any: None	
Noise	
What types of noise exist in the area that may affect your project (for example: traffic, equipment, operations, other?): None	

What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Short term construction noise will occur during normal work hours. Long term vehicular traffic noise associated with the development.	**For Agency Use Only**
Indicate the hours noise would come from the site: Estimated hours 7am to 6 pm	
Proposed measures to reduce or control noise impacts, if any: None	
Land and Shoreline Use	
What is the current use of the site and adjacent properties? Site is undeveloped. Adjacent areas include other multi-family dwellings.	
Has the site been used for agriculture? Yes ☐ No ☒ If so, describe:	
Describe any structures on the site: An old pump house building.	
Will any structure(s) be demolished ? Yes ☒ No ☐ If so, what? Pump house building	
What is the current zoning classification at the site? C-LB and C-1	
What is the current comprehensive plan designation of the site? C-LB and C-1	
If applicable, what is the current shoreline master program designation of the site? NA	
Has any part of the site been classified as an "environmentally sensitive area"? Yes ☒ No ☐ If so, please specify: A portion of the site has been identified as an artificial wetland.	

Approximately how many people would reside or work in the completed project? For 252 units with an estimated 2.5-3 people/unit approximately 630 to 756 people could possibly reside.	**For Agency Use Only**
Approximately how many people would the completed project displace? None	
Proposed measures to avoid or reduce displacement impacts, if any: None	
Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: None	
Housing	
Approximately how many units would be provided, if any? 252 Units Check the type of housing: High ☐ Middle ☒ Low-income ☒	
Approximately how many housing units, if any, would be eliminated? None	
Check the type of housing: High ☐ Middle ☒ Low-income ☒	
Proposed measures to reduce or control housing impacts, if any: NA	
Aesthetics	
What is the tallest height of any proposed structure(s), not including antennas? 55-ft	
What is the principal exterior building material(s) proposed? Lap siding.	
What views, in the immediate vicinity, would be altered or obstructed? None anticipated	
Proposed measures to reduce or control aesthetic impacts, if any: Building to meet City code requirements	

Light and Glare	**For Agency Use Only**
What type of light or glare will the proposal produce? Normal lighting for mult-family developments	
What time of day would it mainly occur? In the evening after dusk	
Could light or glare from the finished project be a safety hazard or interfere with views? Yes ☐ No ☒	
What existing off-site sources of light or glare may affect your proposal? None	
Proposed measures to reduce or control light and glare impacts, if any: Lighting to be in accordance with City code requirements	
Recreation	
What designated and informal recreational opportunities are in the immediate vicinity? Hanford high school playfields and Leslie Groves Park are nearby	
Would the proposed project displace any existing recreational uses? Yes ☐ No ☒ If so, describe:	
Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: None	
Historic and Cultural Preservation	
Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? Yes ☐ No ☒ If so, generally describe:	
Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site: None known	
Proposed measure to reduce or control impacts, if any: None	

Transportation	**For Agency Use Only**
Identify public streets and highways serving the site: Spengler Road, Hanford Street and George Washington Way	
Describe proposed access to the exiting street system. Show on site plans, if any. Driveway access on Spengler Road and Hanford Street.	
Is site currently served by public transit? Yes ☐ No ☒ If no, what is the approximate distance to the nearest transit stop?	
How many parking spaces would the completed project have? 511	
How many parking spaces would the project eliminate? None	
Will the proposal require any new roads, streets, or improvements to existing roads or streets, not including driveways? Yes ☐ No ☒ If so, generally describe :	
Will the new roads, streets, or improvements to existing roads or streets, not including driveways be: Public ☐ Private ☒	
Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? Yes ☐ No ☒ If so, generally describe:	
How many vehicle trips, per day, would be generated by the completed project? Per ITE, estimated to have approximately 1,656 trips per day for 252 units	
If known, indicate when peak volumes would occur: PM Peak hr is estimated to be 156.	
Proposed measures to reduce or control transportation impacts, if any: None	

Public Services	**For Agency Use Only**
Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, or other)? Yes ☒ No ☐ If so, generally describe: Yes. Development would increase demand for public services.	
Proposed measures to reduce or control direct impacts on public services, if any: None	
Utilities	
Check utilities currently available at the site: Electricity ☒ Gas ☒ Other ☐ Phone ☒ Refuse Service ☒ Sanitary Sewer ☒ Septic System ☐ Water ☒	
Check the utilities that are proposed for the project, and list the utility providing the service:	
Electricity ☒ City of Richland Energy Services	
Gas ☒ Cascade Natural Gas	
Other ☐	
Phone ☒ Frontier Communications	
Refuse Service ☒ City of Richland	
Sanitary Sewer ☒ City of Richland	
Septic System ☐	
Water ☒ City of Richland	
Describe the general construction activities on the site or in the immediate vicinity which may be needed: Site to be developed to support multi-family development to include underground utilities, paved parking lots and access roads and vertical building construction.	

Part C · Signature

I DECLARE UNDER PENALTY OF THE PERJURY LAWS THAT THE INFORMATION I HAVE PROVIDED ON THIS FORM/APPLICATION IS TRUE, CORRECT AND COMPLETE.

SIGNATURE

5-21-13

DATE SUBMITTED

Planning & Development Services Division • Current Planning Section
840 Northgate Drive • Richland, WA 99352
General Information: 509/942-7794 • Fax: 509/942-7764

MULTI-FAMILY DWELLING SITE PLAN APPLICATION

File No.: M2013-104

Application is hereby made to the Richland Planning Commission for approval of a Multiple Family Dwelling Site Plan Pursuant to Section 23.70.230 of the Richland Municipal Code.

Applicant Information			
Applicant's Name: Rockworth Companies			
Address: 9980 South 300 West, Ste 310	City: Sandy	State: UT	Zip: 84070
Phone Number: (801) 501-0727	Fax Number: (801) 501-0728	Other:	
Property Information			
Legal Description: Tax Parcel # 1-2608-200-0001-004	Size of Area (square feet): 1,079,568 SF (24.78 Acres)		
Comprehensive Plan Designation: Public Facility	Zoning Classification: C-LB - Limited Business		
General Description of Property Location: W. of George Washington Way between Spengler Rd. and Hanford St.			
Development Proposal			
General Description of Proposal: 9 Apartment Buildings, 17 Garage Buildings, and Clubhouse on 24.78 Acres with associated landscaping and parking areas, with 3.1 Acres for future commercial use.			
Total Dwelling Units: 252	Approximate Time Table of Construction (start-end)		
Comments or Additional Information			

I DECLARE UNDER PENALTY OF THE PERJURY LAWS THAT THE INFORMATION I HAVE PROVIDED ON THIS FORM/APPLICATION IS TRUE, CORRECT AND COMPLETE.

Applicant's Signature Rockworth Companies — Date May 6, 2013

OFFICIAL USE ONLY

Filed on 5/21/13 — Signature

Enclosures:
1. 30 copies of proposed site plan. (see other side).
2. 11" x 17" reduction of site plan.
3. Filing fee

SUNDANCE APARTMENTS

RICHLAND, WA

MAY 2013

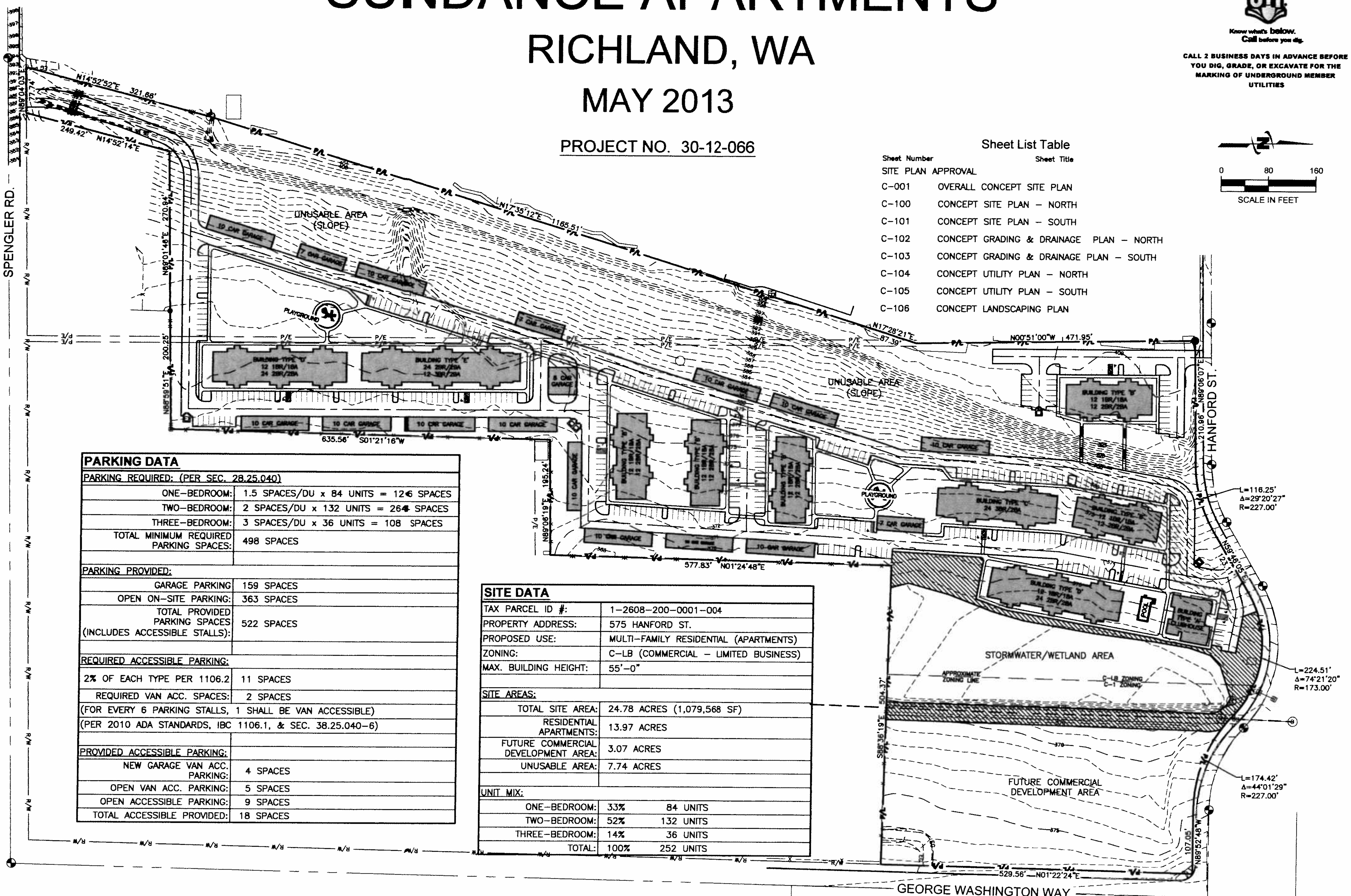
PROJECT NO. 30-12-066

Know what's below. Call before you dig.

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

Sheet List Table

Sheet Number	Sheet Title
SITE PLAN APPROVAL	
C-001	OVERALL CONCEPT SITE PLAN
C-100	CONCEPT SITE PLAN – NORTH
C-101	CONCEPT SITE PLAN – SOUTH
C-102	CONCEPT GRADING & DRAINAGE PLAN – NORTH
C-103	CONCEPT GRADING & DRAINAGE PLAN – SOUTH
C-104	CONCEPT UTILITY PLAN – NORTH
C-105	CONCEPT UTILITY PLAN – SOUTH
C-106	CONCEPT LANDSCAPING PLAN



PARKING DATA

PARKING REQUIRED: (PER SEC. 28.25.040)	
ONE-BEDROOM:	1.5 SPACES/DU x 84 UNITS = 126 SPACES
TWO-BEDROOM:	2 SPACES/DU x 132 UNITS = 264 SPACES
THREE-BEDROOM:	3 SPACES/DU x 36 UNITS = 108 SPACES
TOTAL MINIMUM REQUIRED PARKING SPACES:	498 SPACES
PARKING PROVIDED:	
GARAGE PARKING	159 SPACES
OPEN ON-SITE PARKING:	363 SPACES
TOTAL PROVIDED PARKING SPACES (INCLUDES ACCESSIBLE STALLS):	522 SPACES
REQUIRED ACCESSIBLE PARKING:	
2% OF EACH TYPE PER 1106.2	11 SPACES
REQUIRED VAN ACC. SPACES:	2 SPACES
(FOR EVERY 6 PARKING STALLS, 1 SHALL BE VAN ACCESSIBLE)	
(PER 2010 ADA STANDARDS, IBC 1106.1, & SEC. 38.25.040-6)	
PROVIDED ACCESSIBLE PARKING:	
NEW GARAGE VAN ACC. PARKING:	4 SPACES
OPEN VAN ACC. PARKING:	5 SPACES
OPEN ACCESSIBLE PARKING:	9 SPACES
TOTAL ACCESSIBLE PROVIDED:	18 SPACES

SITE DATA

TAX PARCEL ID #:	1-2608-200-0001-004	
PROPERTY ADDRESS:	575 HANFORD ST.	
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (APARTMENTS)	
ZONING:	C-LB (COMMERCIAL – LIMITED BUSINESS)	
MAX. BUILDING HEIGHT:	55'-0"	
SITE AREAS:		
TOTAL SITE AREA:	24.78 ACRES (1,079,568 SF)	
RESIDENTIAL APARTMENTS:	13.97 ACRES	
FUTURE COMMERCIAL DEVELOPMENT AREA:	3.07 ACRES	
UNUSABLE AREA:	7.74 ACRES	
UNIT MIX:		
ONE-BEDROOM:	33%	84 UNITS
TWO-BEDROOM:	52%	132 UNITS
THREE-BEDROOM:	14%	36 UNITS
TOTAL:	100%	252 UNITS

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
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www.jub.com

PRELIMINARY PLANS - NOT FOR CONSTRUCTION

NO.	REVISION DESCRIPTION	BY	APPR.	DATE

SUNDANCE APARTMENTS RICHLAND, WA

OVERALL CONCEPT SITE PLAN

FILE	30-12-066_G000
JUB PROJ. #:	30-12-066
DRAWN BY:	PSI
DESIGN BY:	PSI
CHECKED BY:	DSM
ONE INCH AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY	
LAST UPDATED:	5/20/2013

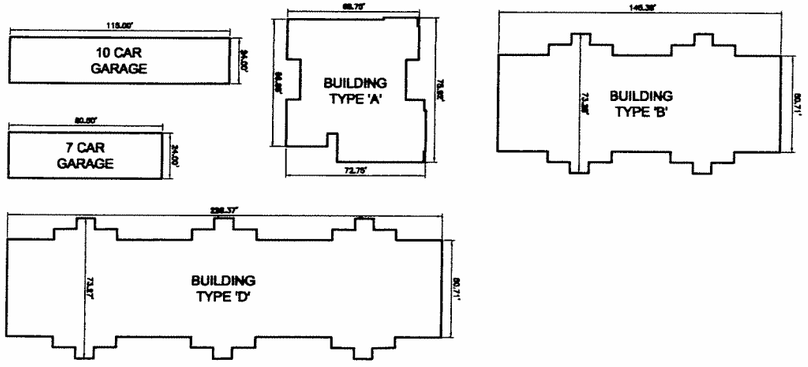
SHEET NUMBER:

C-001

KEYED NOTES:

- SL1 DRIVEWAY PER COR STD DWG ST2
- SL2 STANDARD DUTY ASPHALT
- SL3 CONCRETE BARRIER CURB, TYP.
- SL4 CONCRETE SIDEWALK, TYP.
- SL5 PEDESTRIAN RAMP
- SL6 4" SOLID WHITE PAINT STRIPE, TYP.
- SL7 4" SOLID PAINTED STRIPING, 2' O.C. @ 45° ANGLE, TYP.
- SL8 ACCESSIBLE PARKING SPACE. ACCESSIBLE PARKING SYMBOL TYP. AND ACCESSIBLE PARKING SIGN, TYP. SIGN BASE SHALL BE SET 2' FROM BACK EDGE OF CURB,
- SL9 SOLID WASTE CONTAINER PAD AND ENCLOSURE
- SL10 WETLAND BUFFER AREA
- SL11 WETLAND BOUNDARY

TYPICAL BUILDING DIMENSIONS:



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0 40 80
SCALE IN FEET

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NO	DESCRIPTION	REVISION	BY	APP'D	DATE

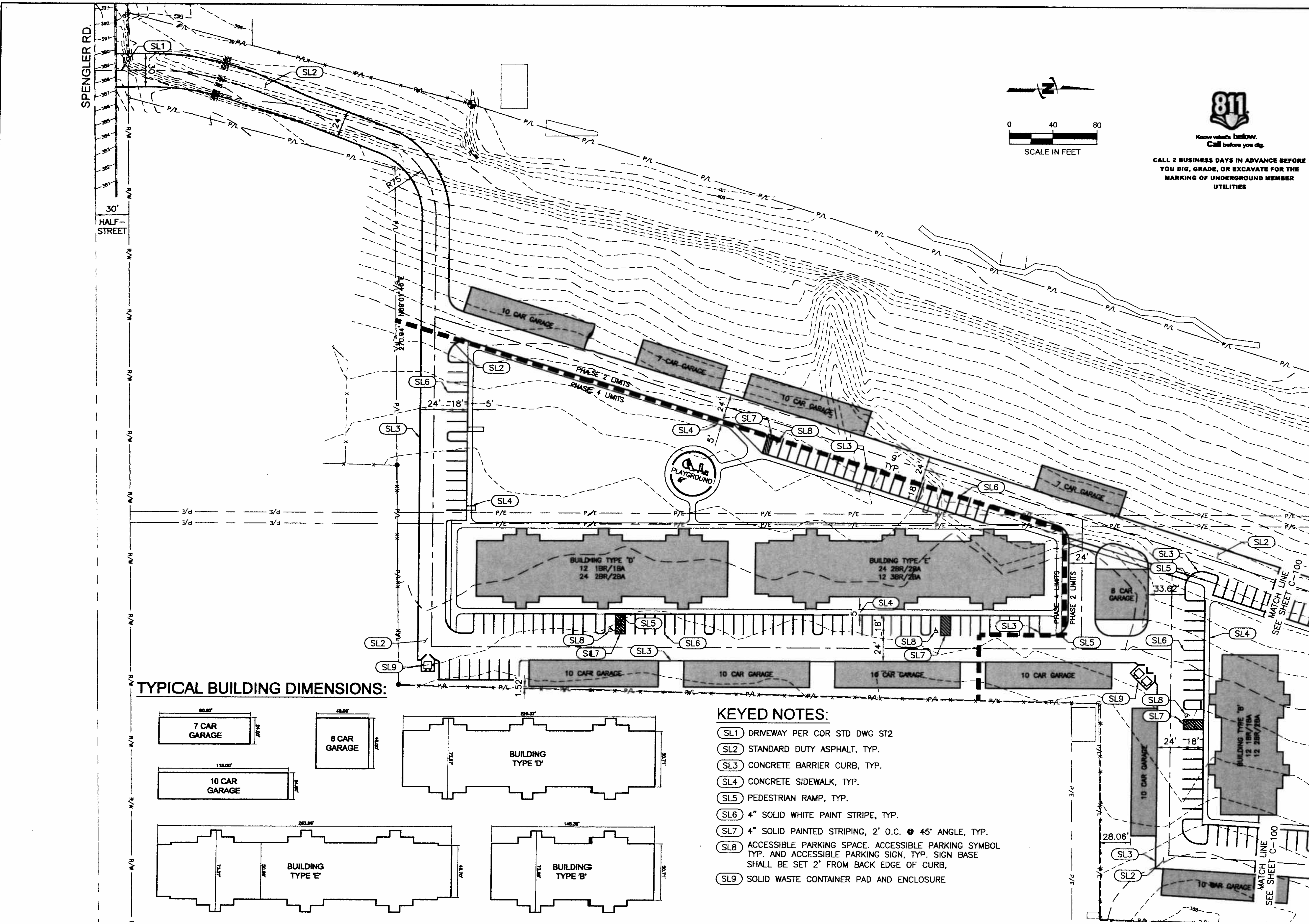
SUNDANCE APARTMENTS
RICHLAND, WA

CONCEPT SITE PLAN - NORTH

FILE: 30-12-066_C100
JUB PROJ. #: 30-12-066
DRAWN BY: PSI
DESIGN BY: PSI
CHECKED BY: DSM
ONE INCH AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 5/21/2013

SHEET NUMBER:
C-100

Plot Date: 5/21/2013 11:13 AM Plotted By: Darral Moore
Data Created: 4/15/2013 F:\PROJECT DATA\30-12-066 - RICHLAND NORTH GWAY (HANFORD ST APTS)\CAD\BASE\SITE PLAN APPROVAL\30-12-066_C100.DWG



KEYED NOTES:

- SL1 DRIVEWAY PER COR STD DWG ST2
- SL2 STANDARD DUTY ASPHALT, TYP.
- SL3 CONCRETE BARRIER CURB, TYP.
- SL4 CONCRETE SIDEWALK, TYP.
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- SL9 SOLID WASTE CONTAINER PAD AND ENCLOSURE

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PRELIMINARY PLANS NOT FOR CONSTRUCTION

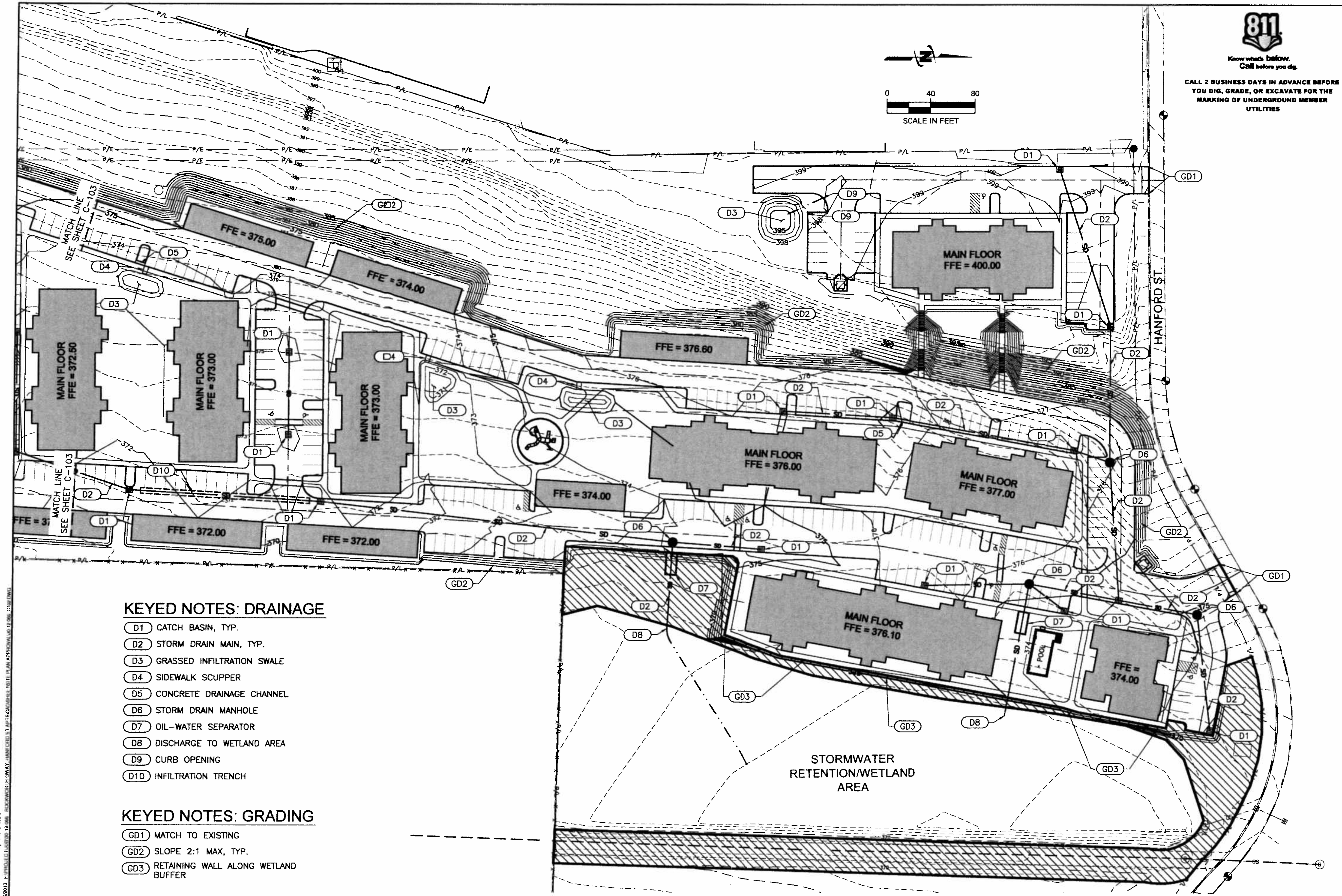
REVISION				
NO	DESCRIPTION	BY	APR	DATE

SUNDANCE APARTMENTS RICHLAND, WA

CONCEPT SITE PLAN - SOUTH

FILE: 30-12-066_C101
JUB PROJ. #: 30-12-066
DRAWN BY: PSI
DESIGN BY: PSI
CHECKED BY: DSM
ONE INCH — AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 5/21/2013

SHEET NUMBER: C-101



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KEYED NOTES: DRAINAGE

- D1 CATCH BASIN, TYP.
- D2 STORM DRAIN MAIN, TYP.
- D3 GRASSED INFILTRATION SWALE
- D4 SIDEWALK SCUPPER
- D5 CONCRETE DRAINAGE CHANNEL
- D6 STORM DRAIN MANHOLE
- D7 OIL-WATER SEPARATOR
- D8 DISCHARGE TO WETLAND AREA
- D9 CURB OPENING
- D10 INFILTRATION TRENCH

KEYED NOTES: GRADING

- GD1 MATCH TO EXISTING
- GD2 SLOPE 2:1 MAX, TYP.
- GD3 RETAINING WALL ALONG WETLAND BUFFER

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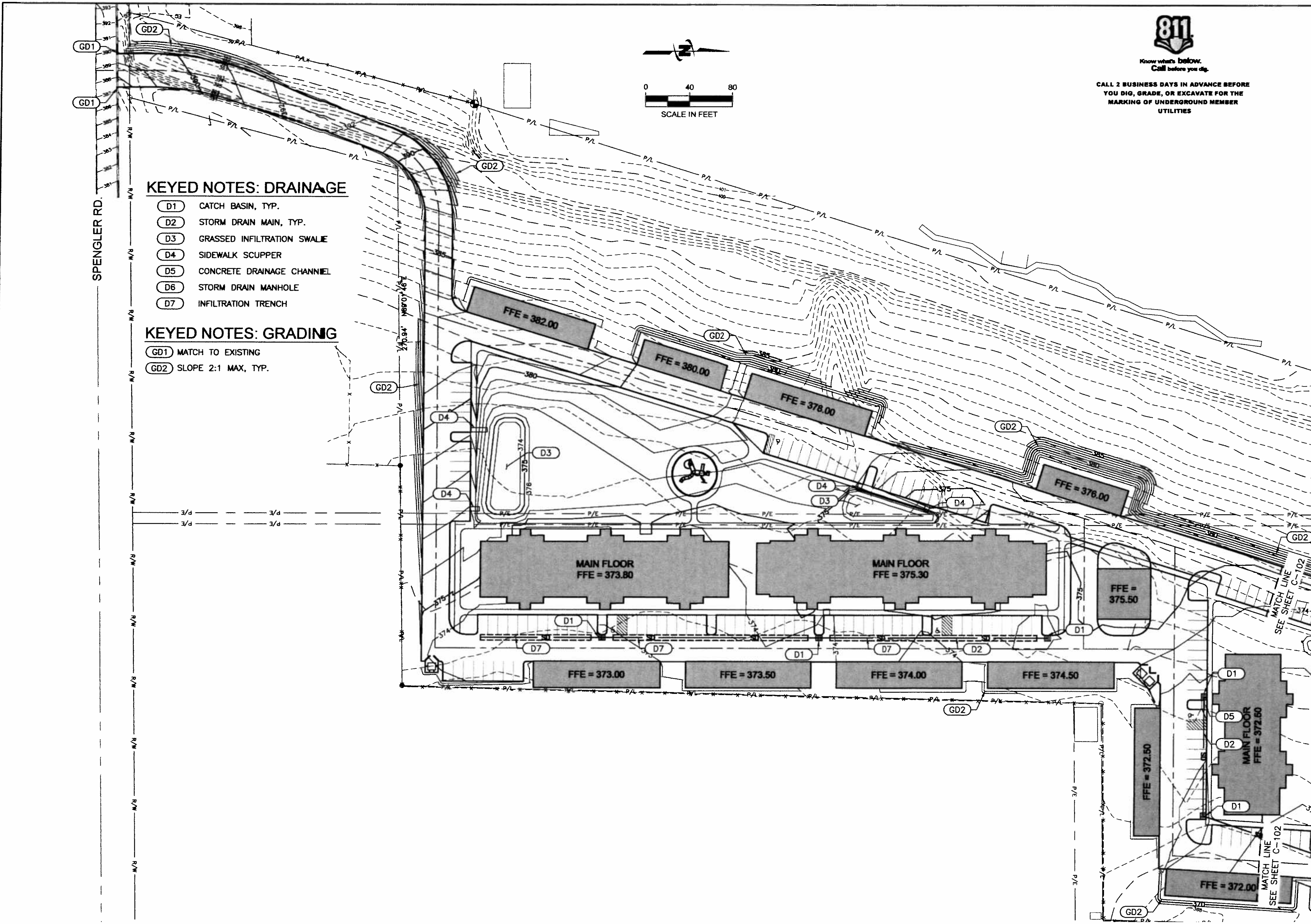
REVISION				
NO.	DESCRIPTION	BY	APPR.	DATE

SUNDANCE APARTMENTS
RICHLAND, WA

CONCEPT GRADING & DRAINAGE PLAN - NORTH

FILE: 30-12-066_C102
JUB PROJ. #: 30-12-066
DRAWN BY: PSI
DESIGN BY: PSI
CHECKED BY: DSM
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 5/21/2013

SHEET NUMBER:
C-102



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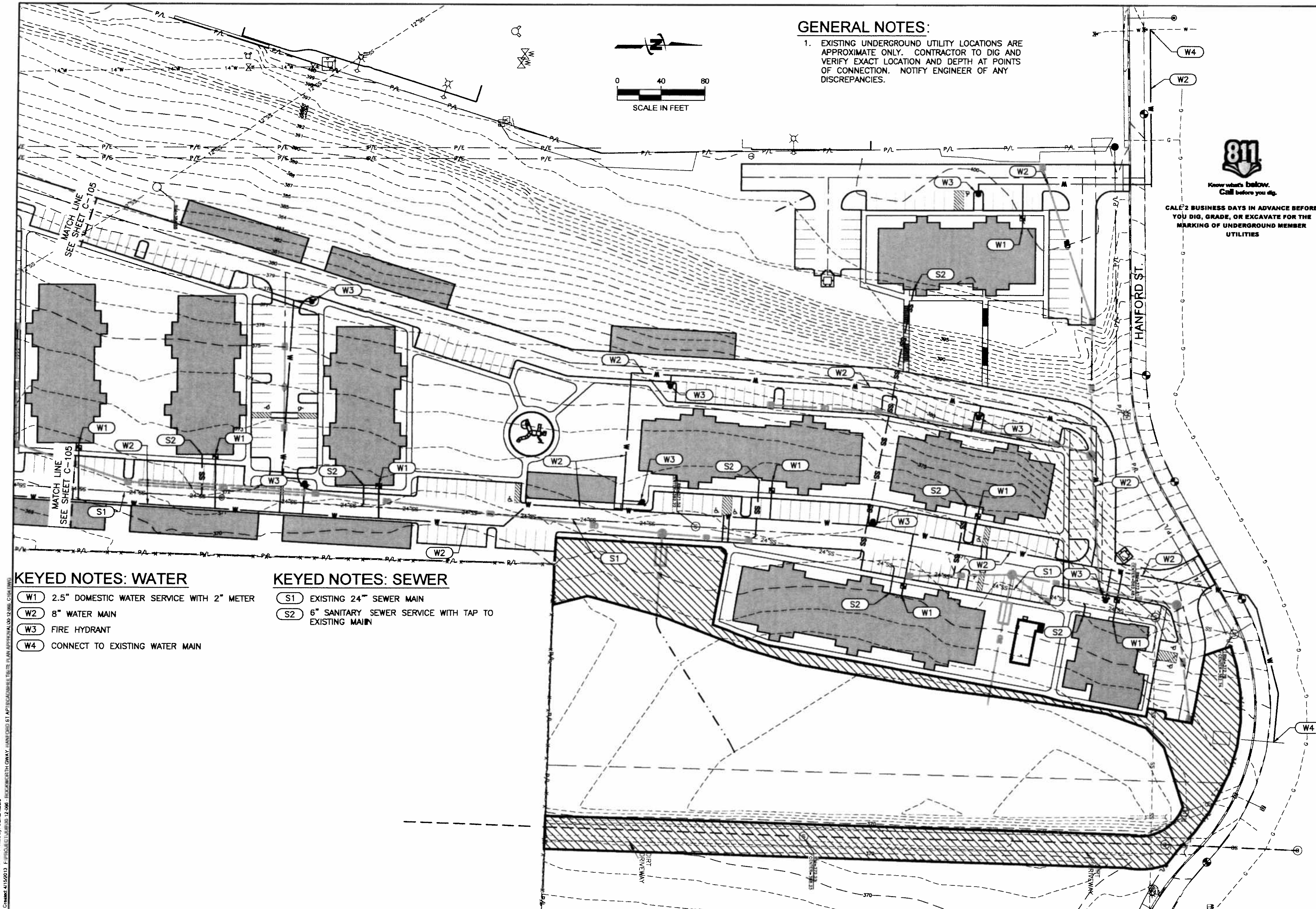
NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

SUNDANCE APARTMENTS
RICHLAND, WA

CONCEPT GRADING & DRAINAGE PLAN - SOUTH

FILE: 30-12-066 C103
JUB PROJ. #: 30-12-066
DRAWN BY: PSI
DESIGN BY: PSI
CHECKED BY: DSM
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 5/2/2013
SHEET NUMBER:
C-103



GENERAL NOTES:

1. EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY. CONTRACTOR TO DIG AND VERIFY EXACT LOCATION AND DEPTH AT POINTS OF CONNECTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.

KEYED NOTES: WATER

- W1 2.5" DOMESTIC WATER SERVICE WITH 2" METER
- W2 8" WATER MAIN
- W3 FIRE HYDRANT
- W4 CONNECT TO EXISTING WATER MAIN

KEYED NOTES: SEWER

- S1 EXISTING 24" SEWER MAIN
- S2 6" SANITARY SEWER SERVICE WITH TAP TO EXISTING MAIN

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PRELIMINARY PLANS NOT FOR CONSTRUCTION

REVISION

NO	DESCRIPTION	BY	APR	DATE

SUNDANCE APARTMENTS RICHLAND, WA

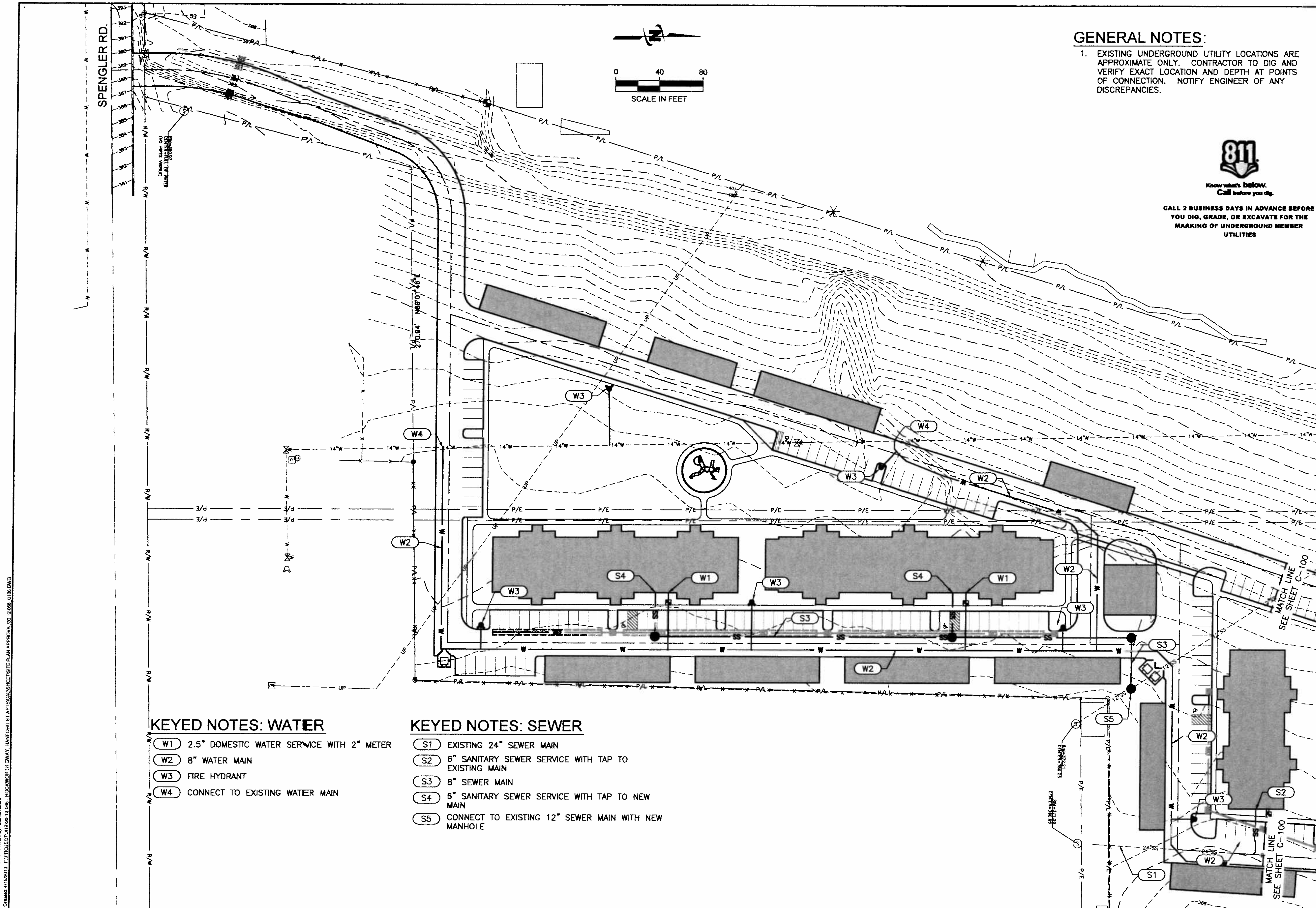
CONCEPT UTILITY PLAN - NORTH

FILE: 30-12-066 C104
JUB PROJ #: 30-12-066
DRAWN BY: PSI
DESIGN BY: PSI
CHECKED BY: DSM

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

LAST UPDATED: 5/1/2013

SHEET NUMBER:
C-104



GENERAL NOTES:

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- W2 8" WATER MAIN
- W3 FIRE HYDRANT
- W4 CONNECT TO EXISTING WATER MAIN

KEYED NOTES: SEWER

- S1 EXISTING 24" SEWER MAIN
- S2 6" SANITARY SEWER SERVICE WITH TAP TO EXISTING MAIN
- S3 8" SEWER MAIN
- S4 6" SANITARY SEWER SERVICE WITH TAP TO NEW MAIN
- S5 CONNECT TO EXISTING 12" SEWER MAIN WITH NEW MANHOLE

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SUNDANCE APARTMENTS RICHLAND, WA

CONCEPT UTILITY PLAN - SOUTH

FILE: 30-12-066_C105
JUB PROJ.#: 30-12-066
DRAWN BY: PSI
DESIGN BY: PSI
CHECKED BY: DSM

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 5/1/2013

SHEET NUMBER:
C-105

Wetland Delineation Report

Benton County Parcel #126082000001004

Proposed Rockworth Development - Benton County, Washington

(Located in W ½ Section 26, Township 10 North, Range 28 East)

December 2012

Prepared for: [illegible] Moore P.E., [illegible]
J-U-B ENGINEERS, Inc.
2810 [illegible] Clearwater Ave.
[illegible]newick, WA 99336

Prepared by: Vincent Barthels, Biologist
J-U-B ENGINEERS, Inc.
[illegible]

TABLE OF CONTENTS

Wetland Delineation	Page No.
Introduction	3
Methods	3
Discussion	4
Findings	6
Conclusion	7
References Cited	8

Appendix

- Project Locator Exhibit
- Wetland Delineation Map
- Soil Survey Map Information
- Hydric Soils Information
- National Wetland Inventory Map (Richland, Washington Quad)
- Field Data Forms
- Photo Inventory
- As-built Backwash Water Treatment Facility Plans

Introduction

This wetland delineation was authorized by Darral Moore, P.E. with J-U-B ENGINEERS, Inc., in order to properly define the wetland boundaries within a 24.79-acre study area (see Wetland Delineation Map in the Appendix). The wetland delineation was prepared pursuant to the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual Technical Report Y-87-1 (1987 Manual), the Arid West Region Regional Supplement (2008) and Richland Municipal Code Chapter 22.10, Article II. The defined study area is linked to the proposed development of a multi-family and retail commercial development, located within the W ½ Section 26, Township 10 North, Range 28 East (Willamette Meridian), Benton County, Washington. Moreover, the project limits are contained within the City of Richland, within the parcel bordered by Hanford Street to the north and George Washington Way to the east. The adjacent parcel toward the south contains a City of Richland water treatment facility consisting of two unlined settling ponds. The ponds are used to settle solids from backwash water produced by the City's water treatment system. This investigation was performed to determine the presence or absence of wetland boundaries within the defined study area. The field investigation was conducted on November 27th, 2012. The primary investigator was Vincent Barthels, Biologist for J-U-B ENGINEERS, Inc. This report includes a discussion of wetlands within the defined project study area. The goal of this report is to identify the wetlands in the defined study area.

General Project Description:

The Rockworth Companies propose to develop an apartment complex within Benton County parcel #126082000001004. The defined study area linked to this wetland delineation report is entirely contained within the aforementioned parcel.

Directions to the defined project study area:

The project is located approximately 5 miles north of I-182 on George Washington Way, within the city limits of Richland, Washington. The defined study area is located kitty-corner to Hanford High School (see Project Locator Exhibit).

Methods

The wetland delineation was conducted using methodology described in the USACE Wetland Delineation Manual (1987 Manual), the Arid West Region Regional Supplement (2008) and Richland Municipal Code Chapter 22.10, Article II. Specific investigations were performed at four individual soil test pits (STPs) situated along one east-west oriented representative transect. STPs were established in order to identify the presence/absence of hydrophytic plant communities, wetland hydrology and hydric soils. The STPs were marked with wooden lath and green flagging. Professional land surveying was performed by J-U-B Engineers, Inc. to capture the established STP markers and wetland boundaries set in the field using a Trimble R8 GNSS RTK (Real Time Kinematics) Global Positioning System (GPS) unit. This system has an accuracy of about +/- 10mm (0.03 feet) + 1ppm RMS Horizontal, and +/- 20mm (0.06 feet) + 1ppm vertical. The GPS points were downloaded into ACAD Civil 3D 2011 to convert established GPS waypoints into the developed Wetland Delineation Map, which aided in the determination of wetland acreage within the defined study area. Photos were taken to properly document pertinent locations (see Photo Inventory in Appendix).

Sources of information used for this investigation included:

1) Web Soil Survey, including Hydric Soils Information (USDA/NRCS 2012) (see Soil Survey Map in Appendix);
2) Richland, Washington USGS 7.5 minute Quad Map;
3) National List of Plant Species that Occur in Wetlands (Resource Management Group, Inc. 1993);

4) Plant identification references (see References);
5) Richland, Washington - National Wetland Inventory (NWI) Map (see Appendix);
6) Munsell soil chart (2000 Edition); and,

Discussion

Topography

The project study area contains a north-south oriented shallow depression bordered by gently sloped hills (2-15% slopes). The elevation of the project action area falls within the range of 385 feet +/- 25 feet above sea level.

Land Use

The defined study area is primarily undeveloped, as is the parcel to the north. Immediately to the south there is a City of Richland backwash water treatment facility, consisting of two unlined settling ponds and an outfall pipe. Based on the date included on the attached plans, these settling ponds were likely constructed in 1979 or 1980 by the City of Richland. An earthen dike covers the outfall pipe as it passes through the subject property, eventually discharging to the north (see As-built Plans in Appendix). Residential subdivisions and apartment complexes occupy the area to the east and south of the project study area. The Stevens Center business park is located immediately west of the project study area, while Hanford High School is located northeast of the project area.

Climate

The project area has an average annual temperature of 54.1 degrees Fahrenheit. The average annual rainfall is 7.97 inches; whereas, the average annual snowfall is 3.5 inches. The growing season typically falls between March 21st and November 7th, 231 days (USDA 2002).

Plant Communities

Plant communities in the project area primarily consist of assorted herbaceous vegetation, such as grasses and annual weeds, and a few scattered shrubs or trees. Table 1 illustrates the dominant plant species that were encountered within the study area and reports the individual species' wetland indicator status.

Table 1 - Common vegetation encountered within the study area.

Common Name	Scientific Name	Wetland Indicator Status
Smooth brome	*Bromus inermis*	FACU
Baltic rush	*Juncus balticus*	OBL
Bulbous bluegrass	*Poa bulbosa*	FACU
Bull thistle	*Cirsium vulgare*	FAC
Creeping thistle	*Cirsium arvense*	FACU
Cattail	*Typha latifolia*	OBL
Cheat grass	*Bromus tectorum*	FACU
Common mullien	*Verbascum thapsus*	FACU
Cottonwood	*Populus spp.*	FAC-FACW
Coyote willow	*Salix exigua*	OBL
Crested wheat grass	*Agropyron cristatum*	FACU
Curly dock	*Rumex crispus*	FACW
Field bindweed	*Convolvulus arvensis*	NI- Suspected FACU
Flix-weed	*Sisymbrium sophia*	FACU
Horseweed	*Conyza canadensis*	FACU

Table 1 - Common vegetation encountered within the study area (continued).

Common Name	Scientific Name	Wetland Indicator Status
Intermediate wheatgrass	*Thinopyrum intermedium*	NI- Suspected FACU
Kentucky bluegrass	*Poa pratensis*	FAC
Kochia	*Kochia scoparia*	FACU
Lambsquarter	*Chenopodium album*	FACU
Plantain	*Plantago major*	FAC
Prickly lettuce	*Lactuca serriola*	FAC-
Quack grass	*Agropyron repens*	FAC
Rabbitbrush	*Chrysothamnus spp.*	UPL
Reed canary grass	*Phalaris arundinacea*	OBL
Russian olive	*Elaeagnus angustifolia*	FAC
Russian thistle	*Salsola kali*	FACU
Salt grass	*Distichlis spicata*	FAC
Sedge	*Carex spp*	FACW
Shepherd's purse	*Capsella bursa-pastoris*	FACU
Slender wheatgrass	*Agropyron trachycaulum*	FACU
Spotted knapweed	*Centaurea maculosa*	FACU
Squirreltail	*Elymus elymoides*	UPL
Tumble mustard	*Sisymbrium altissimum*	FACU
Yarrow	*Achillea millefolium*	FACU

Hydrology

The adjacent backwash water settling facility contains two unlined settling ponds (see As-built Plans in the Appendix). The ponds discharge north through a 10" PVC pipe to a recharge basin, situated north of the current alignment of Hanford Street, where the water is infiltrated within a depressional cell dominated by cattails. The discharge pipe is covered with an earthen embankment through the subject property. Subsurface water stemming from lateral seepage from the western settling pond is apparent directly north of the facility. The outfall pipe embankment appears to contain/block the seepage from flowing east, forming the eastern wetland boundary. Site conditions suggest that the wetland area is a direct result of the facility; specifically, lateral seepage from the unlined ponds is supplying wetland hydrology to the identified wetland areas in the defined study area.

Soils

The soil identified for the project study is Burbank loamy fine sand, 2 to 15 percent slopes (USDA 2012). This soil is characterized as a non-hydric soil. General characteristics of the mapped soil are described in the following table.

Table 2 - Characteristics of mapped soil type within the defined study area.

Soil Type	Drainage Class	Soil Coloration and Texture	Permeability	Run-off Potential
Burbank loamy fine sand, 2 to 15 percent slopes (BbD)	Excessively Drained	Grayish brown (10YR 5/2) loamy sand, very dark grayish brown (10YR 3/2) moist; single grained; loose	Rapid	Very Slow to Medium

Wetland/Irrigation Ditch Classifications
The National Wetlands Inventory (NWI) Map does not identify any wetlands within the defined study area.

Findings

Field data forms reflect the conditions as assessed in the field and can be found in the appendix of this report. The following subsections summarize the findings at the individual STPs, how the wetland boundary was determined, and discusses the classification and functionality of the wetlands.

Field Investigations:

(STP # 1):
This data point is located along the western toe of the fill slope covering the 10" outfall pipe, which is situated near the eastern edge of the identified wetland area. The established transect is located midway between Hanford Street and the northern common property boundary shared with the settling basins. A facultative upland vegetative community is present at this STP. Indications of hydric soils and wetland hydrology were not observed. None of the three parameters were met, making this STP an upland data point.

(STP # 2):
This data point, which is paired with STP #1, is located 52 feet directly west of STP #1. It is located within the shallow depression north of the western settling pond. A hydrophytic vegetative community consisting primarily of coyote willow was present at this STP. Hydric soils were indicated by a depleted matrix. Wetland hydrology was lacking; the STP was dry to a depth of 24 inches. It should be noted that the settling ponds, that are suspected to provide subsurface water to this area via lateral seepage, were dry at the time of observation. Based on the vegetative community and soils encountered, wetland hydrology is believed to be present at this STP when the ponds are in use (i.e. full of water). STP #2 can be considered a wetland point, since wetland hydrology via lateral seepage was assumed.

(STP # 3):
This wetland data point is located west of STP #2, near the western edge of the wetland area. Collectively, there is an OBL vegetative community present. Evidence of hydric soils was present; however, wetland hydrology was not. Similarly, as with STP #2, STP #3 was dry to a depth of 24 inches. STP #3 typically also contains wetland hydrology when the detention ponds are in use. STP #3 can also be considered a wetland data point.

(STP # 4):
STP #4, which is paired with STP #3, is located directly west of STP #3. A FACU vegetative community is present at this STP. No evidence of hydric soils was encountered and wetland hydrology was lacking. None of the three parameters were met; consequently, STP #4 is an upland pit.

How the wetland boundaries were chosen:
The wetland boundary was determined primarily by the distinct vegetation and topography shifts. Vegetation shifts were linked between the aforementioned hydrophytic species and upland and/or transitional species, such as common mullein, kochia, prickly lettuce, yarrow, horseweed and flix-weed. Hydric soil indicators and presumed wetland hydrology further substantiated the delineated boundaries.

Wetland identification, classification and functionality:
The 1.88 acres of identified wetlands within the 24.79 acre study area are defined as "artificial wetlands," consistent with Richland Municipal Code 22.10.040. The artificial wetlands stem from lateral seepage associated with the adjacent water treatment facility (see wetland delineation map for the precise location of these features within the defined study area).

The wetlands identified in this report share several important functions and values that include: the ability to protect and improve water quality; ground water recharge; and, provide seasonal wildlife habitat. These wetlands generally act as a very gently sloped catch basin. These wetlands filter the water by degrading or breaking down pollutants.

Proposed project implications to the identified wetland areas
The 1.88 acres of wetlands identified in this report and contained within the subject parcel meet the definition of "artificial wetlands," in accordance with Richland Municipal Code. Activities involving artificially created wetlands are exempt from the provisions of Richland Municipal Code Chapter 22.10 (Sensitive Areas) by section 22.10.080(B)(1), provided best management practices are used. The project proponent should verify the exempt status of the characterized "artificial wetlands" before undertaking any project actions that may encroach within these areas.

Conclusion

The project area contains 1.88 acres of artificial, sloped, wetlands, stemming from lateral seepage of adjacent unlined settling ponds at a City of Richland facility. The identified wetland area is believed to be exempt from regulation by the Richland Sensitive Areas ordinance, provided best management practices are used. The project proponent should verify the exempt status of the project area before commencing any construction activities that could potentially impact or encroach within the delineated wetland area. It should be noted that final authority rests with the appropriate regulatory agencies. Further consultation with the City of Richland Planning Department and the Washington State Department of Ecology, namely Cathy Reed, is warranted to confirm the status of the "artificial wetland areas" identified in this report.

Respectfully submitted by:

12-17-12

Vincent J. Barthels, Biologist
J-U-B ENGINEERS, Inc.

References Cited

Cowardin, L.M., V.Carter, F.C. Golet and E.T. LaRue. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. U.S. Fish and Wildlife Service.

Guard, B.J. 1995. *Wetland Plants of Oregon and Washington*. Lone Pine Publishing, Edmonton, Alberta.

Hitchcock, L.C. and Arthur Cronquist. 1973. *Flora of the Pacific Northwest*. University of Washington Press.

Knobel, E. 1980. *Field Guide to the Grasses, Sedges, and Rushes of the United States*. Dover Publications, New York, New York.

Munsell Color. 2000. Munsell soil color charts. Munsell color, Kallmorgan Corporation, Baltimore, MD.

U.S. Department of Agriculture, Natural Resources Conservation Service (USDA/NRCS) Web Soil Survey. Accessed http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx on 9-10-12.

U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Research and Development Center.

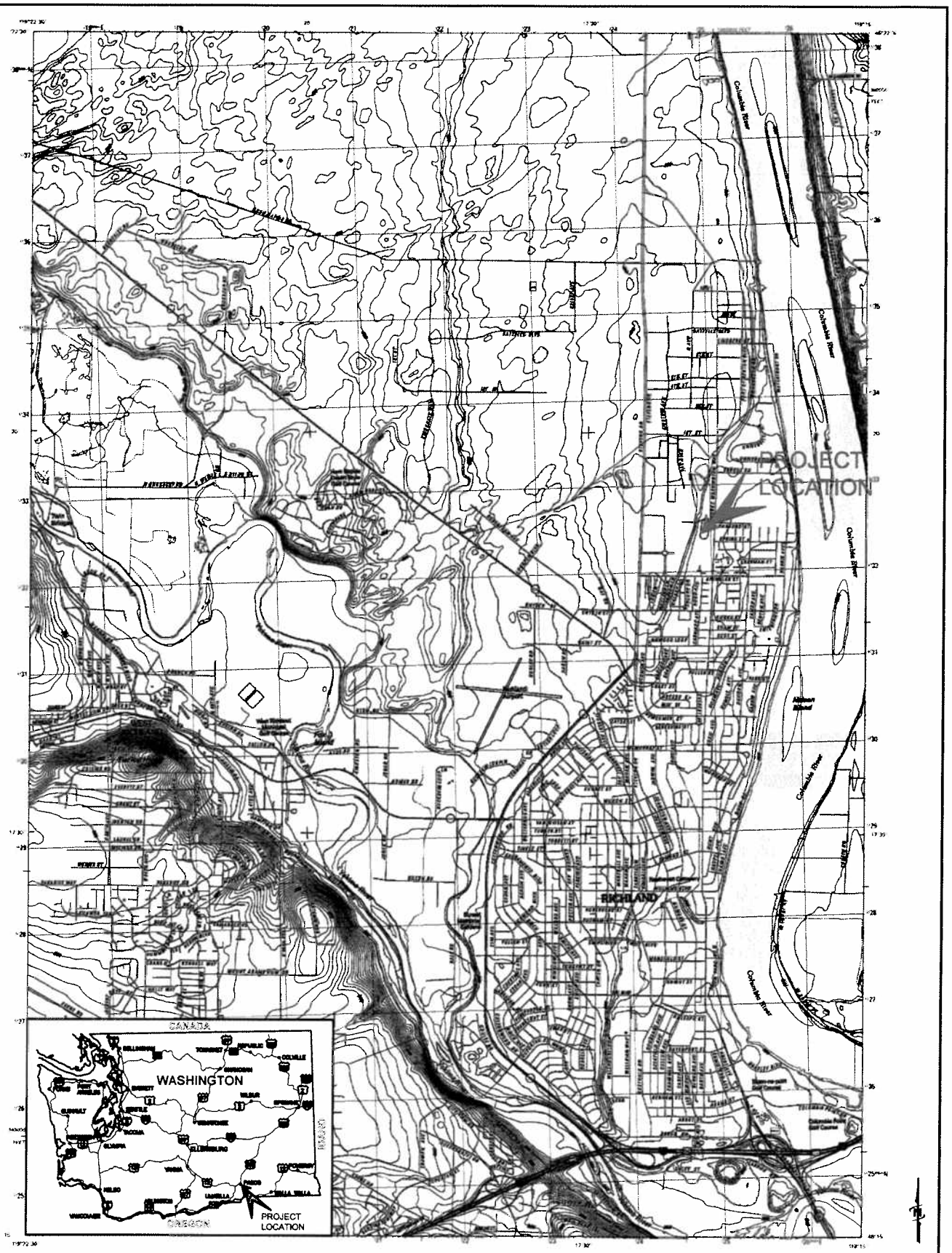
Resource Management Group, Inc. 1994. *National List of Plant species that Occur in Wetlands for USFWS Region 9*. Grand Haven, Michigan.

Wetland Training Institute, Inc. 1995. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual. Poolesville, Md. WTI 95-3. 143pp.

Wetland Training Institute, Inc. 2004. Pocket guide to hydric soil field indicators. Robert J. Pierce (ed.). Wetland Training Institute, Inc., Glenwood, NM. WTI 2004-2. 152p.

Whitson, T.D., Burrill, L.C., Dewey, S.A., Cudney, D.W., Nelson, B.E., Lee, R.D., Parker, R. 1996. *Weeds of the West*. Pioneer of Jackson Hole, Jackson, Wyoming.

APPENDIX



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NO	REVISION DESCRIPTION	BY	APP	DATE

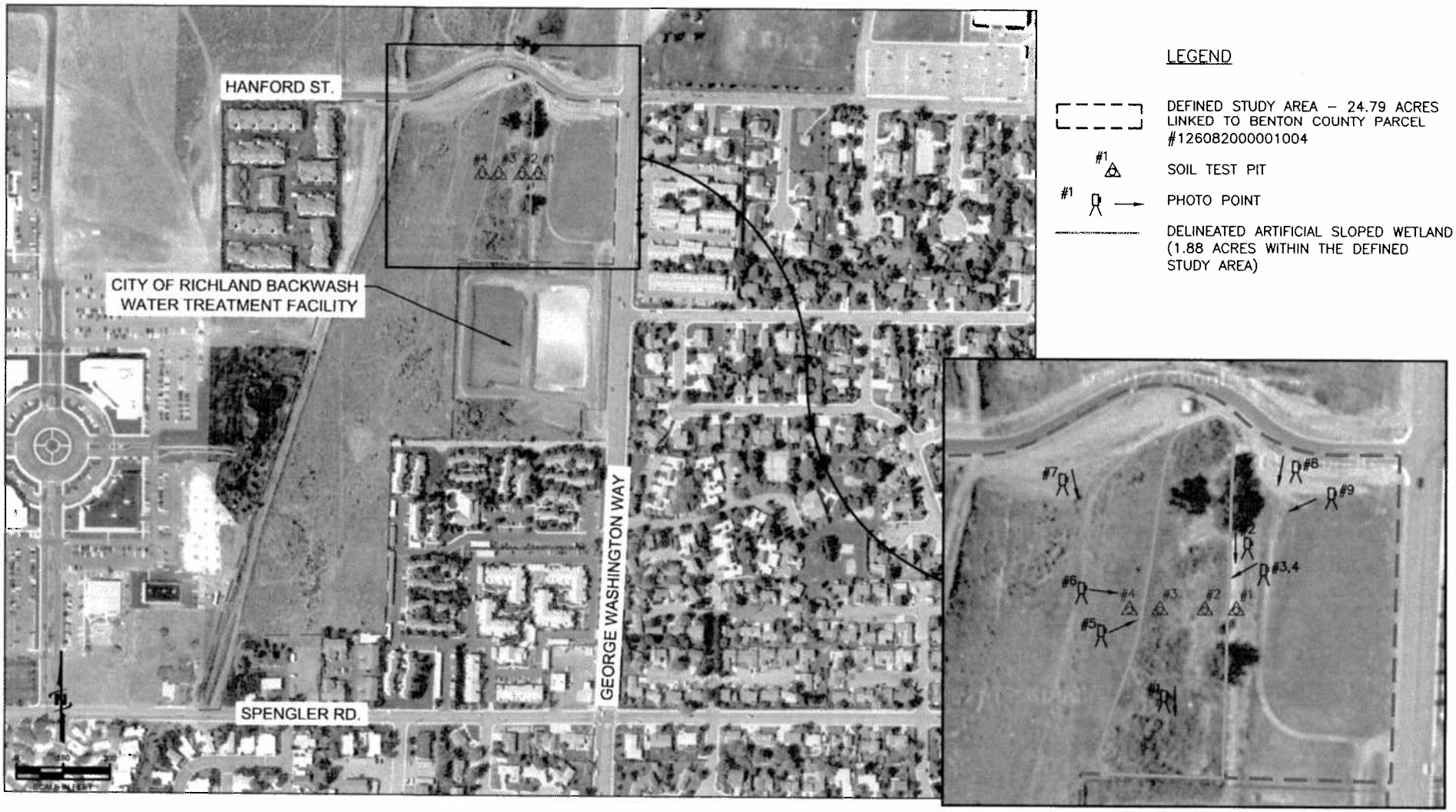
FILE: PROJECT LOCATOR
JUB PROJ #: 30-12-066
DRAWN BY: AAD
DESIGN BY:
CHECKED BY:
LAST UPDATED: 12/11/2012

J-U-B ENGINEERS, INC.

BENTON COUNTY PARCEL #126082000001004
2555 GEORGE WASHINGTON WAY
RICHLAND, WA

SHEET

Plot Date: 12/11/2012 10:53 AM Plotted By: Alex DelRocco
Data Source: 12/11/2012 P:\PROJECTS\ENVIRO GRP PROJ NOS\30-12-066 HANFORD HIGH SCHOOL DEVELOPMENT\SITE\CAD\SHEET\PROJECT LOCATOR.DWG



NOTE: AERIAL IMAGE OBTAINED FROM GOOGLE EARTH.

JUB ENGINEERS, INC.

BENTON COUNTY PARCEL #126082000001004
2555 GEORGE WASHINGTON WAY
WETLAND DELINEATION MAP

Soil Map—Benton County Area, Washington
(2555 George Washington Way)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,480 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 11N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Benton County Area, Washington
Survey Area Data: Version 8, Jun 22, 2012

Date(s) aerial images were photographed: 7/1/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Benton County Area, Washington (WA605)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
BbD	Burbank loamy fine sand, 2 to 15 percent slopes	17.2	63.8%
BlA	Burbank loamy fine sand, gravelly substratum, 0 to 2 percent slopes	0.8	3.0%
BlD	Burbank loamy fine sand, gravelly substratum, 2 to 15 percent slopes	5.5	20.6%
FnB	Finley fine sandy loam, moderately deep, 2 to 5 percent slopes	3.4	12.6%
QuA	Quincy loamy sand, 0 to 2 percent slopes	0.0	0.0%
Totals for Area of Interest		**27.0**	**100.0%**

Hydric Rating by Map Unit—Benton County Area, Washington
(2555 George Washington Way)

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- All Hydric
- Partially Hydric
- Not Hydric
- Unknown Hydric
- Not rated or not available

Political Features

- Cities

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,480 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 11N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

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Date(s) aerial images were photographed: 7/1/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Benton County Area, Washington (WA605)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BbD	Burbank loamy fine sand, 2 to 15 percent slopes	Not Hydric	17.2	63.8%
BlA	Burbank loamy fine sand, gravelly substratum, 0 to 2 percent slopes	Not Hydric	0.8	3.0%
BlD	Burbank loamy fine sand, gravelly substratum, 2 to 15 percent slopes	Not Hydric	5.5	20.6%
FnB	Finley fine sandy loam, moderately deep, 2 to 5 percent slopes	Not Hydric	3.4	12.6%
QuA	Quincy loamy sand, 0 to 2 percent slopes	Not Hydric	0.0	0.0%
Totals for Area of Interest			**27.0**	**100.0%**

Description

This rating indicates the proportion of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is designated as "all hydric," "partially hydric," "not hydric," or "unknown hydric," depending on the rating of its respective components.

"All hydric" means that all components listed for a given map unit are rated as being hydric, while "not hydric" means that all components are rated as not hydric. "Partially hydric" means that at least one component of the map unit is rated as hydric, and at least one component is rated as not hydric. "Unknown hydric" indicates that at least one component is not rated so a definitive rating for the map unit cannot be made.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

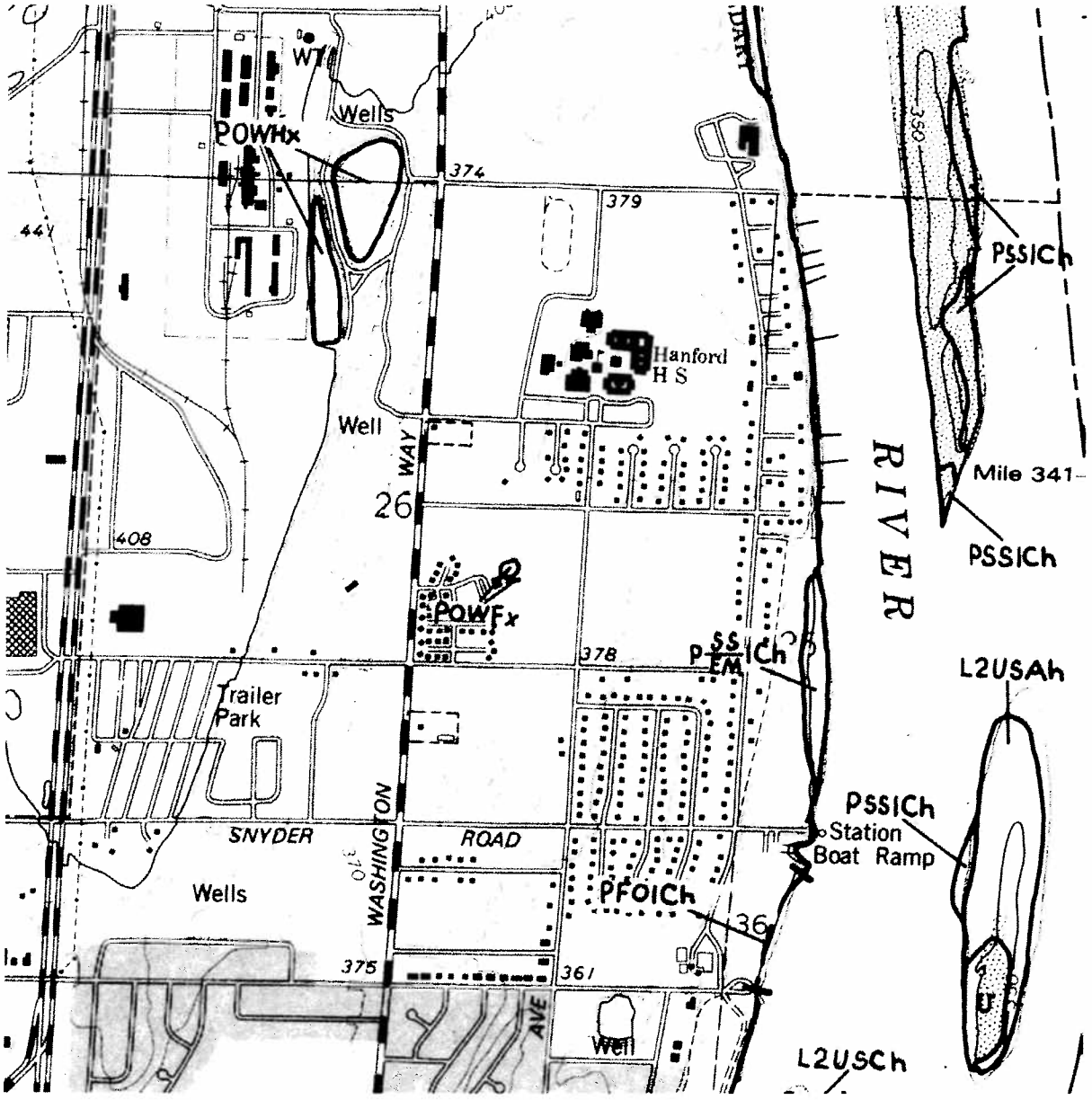
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Absence/Presence

Tie-break Rule: Lower

National Wetlands Inventory Map Richland, WA



WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hanford High School Development City/County: Richland/Benton Sampling Date: 11-27-12

Applicant/Owner: Rockworth Companies State: WA Sampling Point: STP#1 (Upland)

Investigator(s): Vince Barthels, J-U-B ENGINEERS, Inc. Section, Township, Range: S. 26, T. 10N, R. 28E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-15

Subregion (LRR): B Lat: 46° 19' 24.12" N Long: 119° 16' 22.56" W Datum: NAD 27

Soil Map Unit Name: Burbank loamy fine sand, 2 to 15 percent slopes (BbD) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: None of the three parameters have been met. STP #1 is an upland pit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Chrysothamnus spp.*	5	YES	UPL
2.			
	5 = Total Cover		
Herb Stratum (Plot size: _____)			
1. *Bromus tectorum*	40	YES	FACU
2. *Agropyron cristatum*	20	NO	FACU
3. *Salsola kali*	10	NO	FACU
4. *Centaurea maculosa*	10	NO	FACU
5. *Lactuca serriola*	5	NO	FAC-
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 5	x 3 = 15
FACU species 80	x 4 = 320
UPL species 5	x 5 = 25
Column Totals: 90 (A)	360 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Collectively, a FACU vegetative community is present. The parameter has not been met.

SOIL

Sampling Point: STP# 1 (Upland)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	100					Sandy loam	
18-24	10YR 3/2	90	7.5 YR 4/6	10	C	M	Sandy loam	10% cobbles

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

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) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ 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) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks: STP #1 Dry to a depth of 24"

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hanford High School Development City/County: Richland/Benton Sampling Date: 11-27-12

Applicant/Owner: Rockworth Companies State: WA Sampling Point: STP#2 (Wetland)

Investigator(s): Vince Barthels, J-U-B ENGINEERS, Inc. Section, Township, Range: S. 26, T. 10N, R. 28E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-15

Subregion (LRR): B Lat: 46° 19' 24.12" N Long: 119° 16' 22.84" W Datum: NAD 27

Soil Map Unit Name: Burbank loamy fine sand, 2 to 15 percent slopes (BbD) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Two of three parameters have been met. It should be noted, however, that the stormwater detention ponds that are suspected to provide subsurface seepage to the area were dry at the time of investigation. Past experience indicates that while the pond is operational (i.e. full of water) the area around STP #2 contains wetland hydrology. STP #2 is a wetland pit.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. None			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Salix exigua*	60	YES	OBL
	60 = Total Cover		
Herb Stratum (Plot size: _____)			
1. *Poa pratensis*	40	YES	FACU
2. *Cirsium arvense*	10	NO	FACU+
3. *Centaurea maculosa*	5	NO	FACU
	55 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	55	x 4 =	220
UPL species	_____	x 5 =	_____
Column Totals:	115 (A)		280 (B)

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: The shrub stratum at STP #2 was dominated by obligate wetland species. Hydrophytic vegetation is present at STP #2.

SOIL

Sampling Point: STP#2 (Wetland)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1	100					Silt-Loam	
4-24	10 YR 3/2	90	7.5 YR 4/6	10	C	M	Sandy Loam	25% cobble past 18" depth

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks: Mottling present.

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) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ 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)
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks: STP completely dry to a depth of 24 inches; however, the adjacent stormwater detention pond was also dry. Wetland hydrology (i.e. saturation) is typically present when the stormwater facility is full.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hanford High School Development City/County: Richland/Benton Sampling Date: 11-27-12

Applicant/Owner: Rockworth Companies State: WA Sampling Point: STP#3 (Wetland)

Investigator(s): Vince Barthels, J-U-B ENGINEERS, Inc. Section, Township, Range: S. 26, T. 10N, R. 28E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-15

Subregion (LRR): B Lat: 46° 19' 24.12" N Long: 119° 16' 23.22" W Datum: NAD 27

Soil Map Unit Name: Burbank loamy fine sand, 2 to 15 percent slopes (BbD) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (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 X	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No _____**
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No X	

Remarks: Two of three parameters have been met. It should be noted, however, that the stormwater detention ponds that are suspected to provide subsurface seepage to the area were dry at the time of investigation. Past experience indicates that while the pond is operational (i.e. full of water) the area around STP #2 contains wetland hydrology. STP #3 is a wetland pit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. *Salix exigua*	80	YES	OBL
2.			
	80 = Total Cover		
Herb Stratum (Plot size: _____)			
1. *Juncus balticus*	20	YES	OBL
	20 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 80 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 100	x 1 = 100
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	100 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No _____**

Remarks: Collectively there is an OBL vegetative community present. Parameter has been fulfilled.

SOIL

Sampling Point: STP# 3 (wetland)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10Y 3/3	100					Silt loam	
7-24	10YR 3/3	80	7.5 YR 4/6	20	C	M	Sandy loam	25% cobbles below 18" depth

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** X **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) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ 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)
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks: STP #3 dry to a depth of 24"; however, the adjacent stormwater detention pond was also dry. Wetland hydrology (i.e. saturation) is typically present when the stormwater facility is full.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hanford High School Development City/County: Richland/Benton Sampling Date: 11-27-12

Applicant/Owner: Rockworth Companies State: WA Sampling Point: STP#4 (Upland)

Investigator(s): Vince Barthels, J-U-B ENGINEERS, Inc. Section, Township, Range: S. 26, T. 10N, R. 28E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-15

Subregion (LRR): B Lat: 46° 19' 24.12" N Long: 119° 16' 23.78" W Datum: NAD 27

Soil Map Unit Name: Burbank loamy fine sand, 2 to 15 percent slopes (BbD) NWI classification: N/A

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: None of the three parameters were met. SPT #4 is an upland pit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. None			
2.			
3.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1 *Bromus tectorum*	40	YES	FACU
2. *Salsola kali*	20	NO	FACU
3. *Conyza canadensis*	15	NO	FACU
4. *Centaurea maculosa*	10	NO	FACU
5. *Achillea millefolium*	10	NO	FACU
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 95	x 4 = 380
UPL species _____	x 5 = _____
Column Totals: 95 (A)	380 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: FACU vegetative community present. Parameter not met.

SOIL

Sampling Point: STP#4 (Upland)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 3/2	100					Silt-Loam	
12-15	10 YR 3/3	80	7.5 YR 4/6	20	C	M	Sandy-Loam	Mottling present
15-17	10 YR 3/3	80	7.5 YR 4/6	20	C	M	Cobble	
17-24	10 YR 4/3	100					Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

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) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ 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) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks: STP#4 is completely dry to a depth of 24 inches.

Photo Inventory

The following 17 photos were taken on November 27, 2012.

Photo 1: Looking southerly toward the dike associated with the adjacent backwash settling detention ponds.

Photo 2: Soil test pit (STP) #1 (which is paired with STP #2) is located in the upland area on the eastern edge of the delineated wetland area. Vegetation in this area consisted primarily of cheat grass and crested wheatgrass. The orange pins represent the wetland boundary.

Photo 3: STP #2 located to the west of STP #1 within the delineated wetland area. Vegetative assemblages in this area were dominated by coyote willow, but also contained facultative bunch grasses.

Photo 4: Soil sample from the upper 12 inches of STP #2. Mottling is visible in this photo, indicating hydric soils are present.

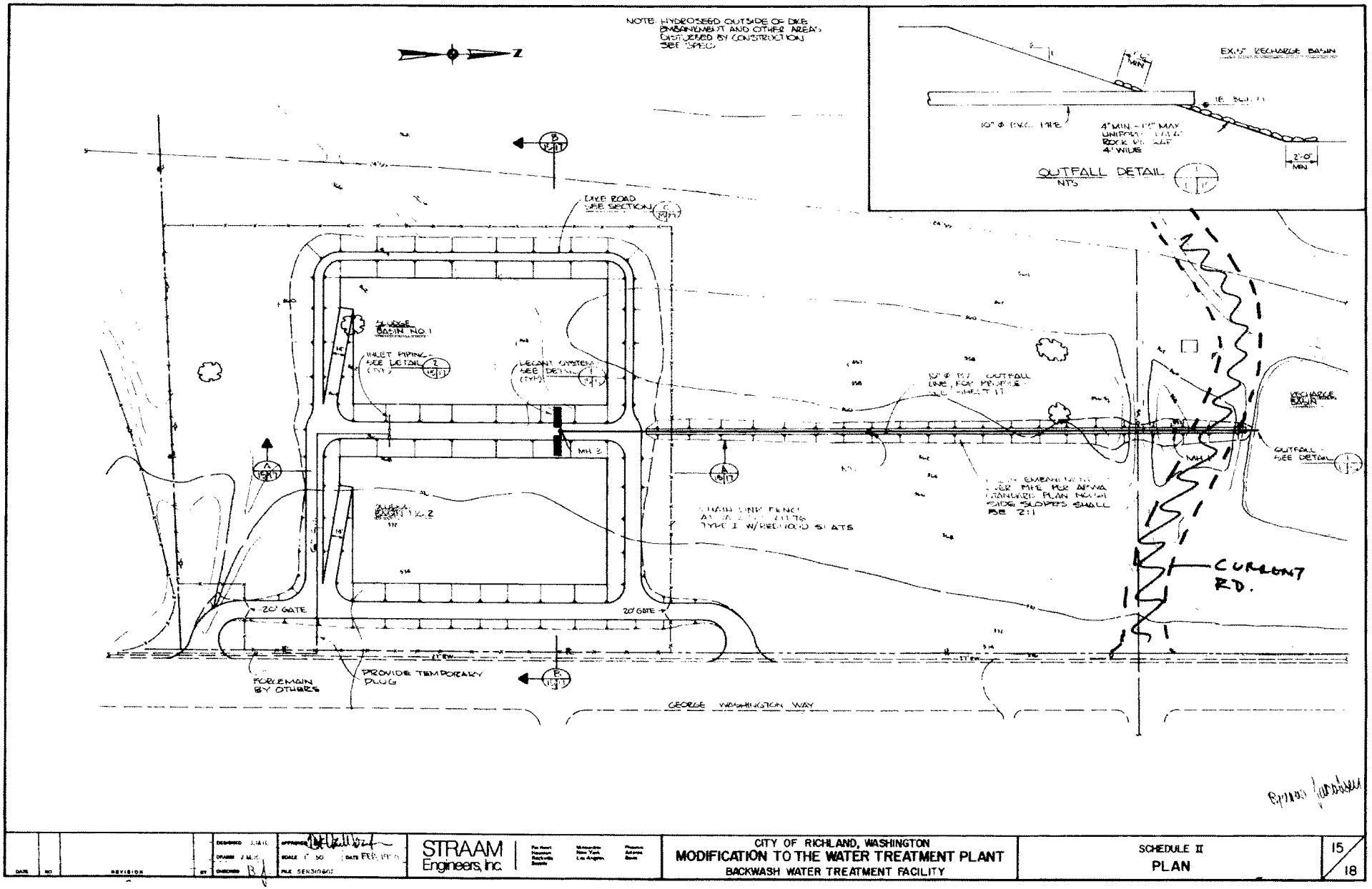
Photo 5: STP #3 located to the west of STP #2 within the delineated wetland area. Similar to STP #2, the vegetation was dominated by coyote willow at STP #3, however, the facultative bunch grasses present at STP #2 were not present at STP #3. The herbaceous stratum was instead dominated by a small relative percentage of Baltic rush.

Photo 6: STP #4 (upland) is located beyond the western edge of the delineated wetland area, west of STP #3. A facultative upland vegetative community was present in this area.

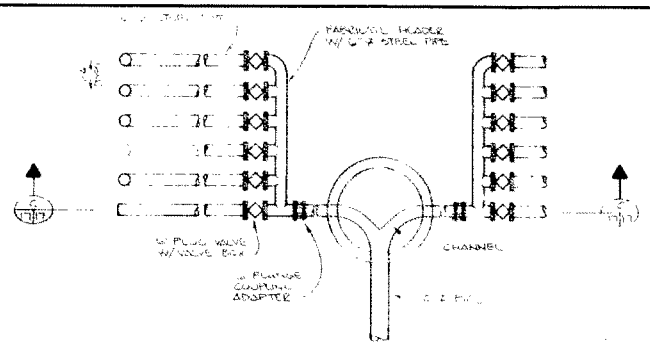
Photo 7: Looking south easterly at the delineated wetland area that correlates to the edge of the coyote willows.

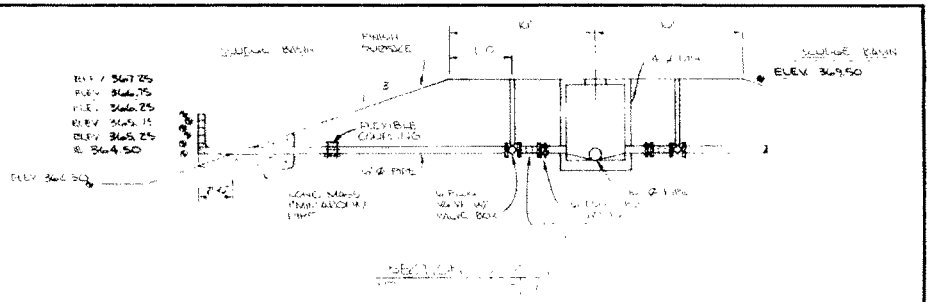
Photo 8: This photo is looking southerly along the earthen berm that covers the 10" outfall pipe. The wetland boundary extends immediately west of the western toe of this earthen berm.

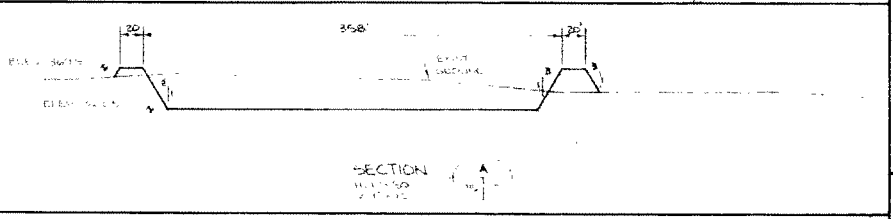
Photo 9: Looking southwest at the identified wetland area from the top of the earthen berm. The charred snags are cottonwoods.



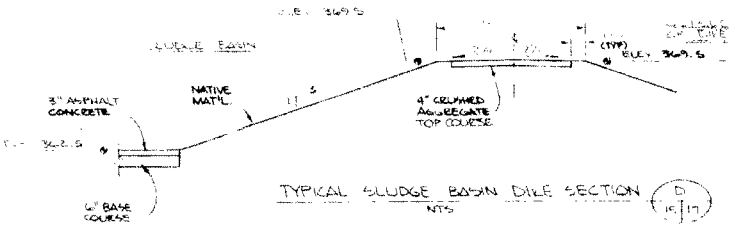
DATE / NO / REVISION / BY	DESIGNED J.M.S. DRAWN J.M.S. CHECKED B.J.	APPROVED	SCALE 1" = 50' DATE FEB. 1979 FILE SER3080G	STRAAM Engineers, Inc.	CITY OF RICHLAND, WASHINGTON MODIFICATION TO THE WATER TREATMENT PLANT BACKWASH WATER TREATMENT FACILITY	SCHEDULE II PLAN	15 18



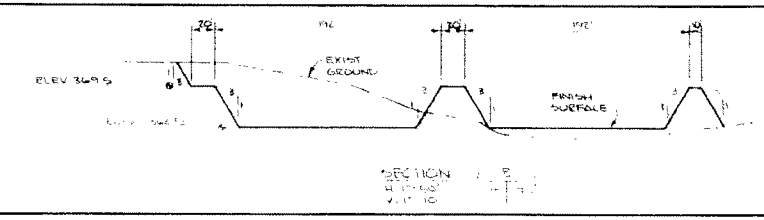




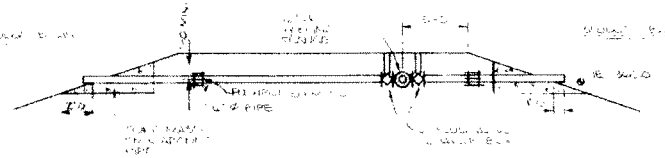
SECTION A



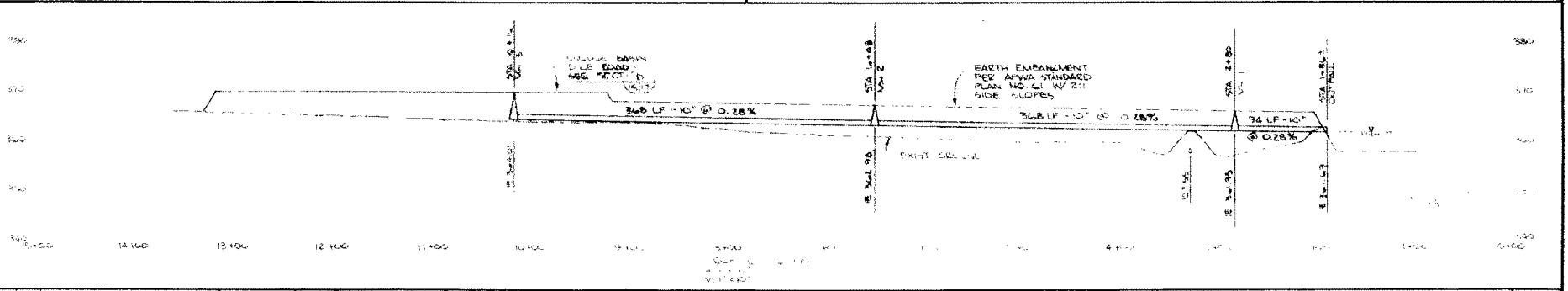
TYPICAL SLUDGE BASIN DIKE SECTION



SECTION B



SLUDGE BASIN INLET PIPING



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AS AS NOTED
FILE SER 310-07

STRAAM Engineers, Inc.
Portland Houston San Luis Obispo | Minneapolis New York Los Angeles | Phoenix Atlanta Boise

CITY OF RICHLAND, WASHINGTON
MODIFICATION TO THE WATER TREATMENT PLANT
BACKWASH WATER TREATMENT FACILITY

SCHEDULE II
DETAILS

17/18