

Rick Givens Planning Consultant 18680 Sunblaze Dr. Oregon City, Oregon 97045

August 7, 2014

Mr. Peter Spir Associate Planner City of West Linn 22500 Salamo Rd. West Linn, Oregon 97068

RE: Stoneking Place PUD Application, PUD-14-02/SUB-14-02

Dear Peter:

We are submitting a revised Tentative Plan and Slope Analysis Map for the proposed Stoneking Place PUD application. These plans have been updated to provide the additional information you requested in your incompleteness letter of July 22, 2014. We are also submitting a revised application narrative that provides a statement as to why a traffic study should not be required for this project.

The arborist consulting on this project is scheduled to complete his work tagging and identifying the trees on the site this week or early next week. Once that is done, we will forward this information to you and Mike Perkins so that he can perform a site inspection. We will then provide the calculations per 55.100(B) (2).

Please let me know if you have any questions regarding the new materials.

Sincerely yours,

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Rick Givens

cc: Darren Gusdorf, Icon Construction & Development, LLC

STONEKING PLACE

Planned Unit Development Subdivision Application

Icon Construction & Development, LLC

Proposal: This application requests approval of a six-lot Planned Unit Development subdivision for property located at 2900 Haskins Road in West Linn. The property is situated southeast of Remington Drive and northwest of Douglas Park. The subject property is 93,612 square feet in area and is presently developed with a single-family home. The proposed will divide the property into a total of six lots, with two being accessed from Haskins Road via a shared driveway and the other four lots taking access from a private street to be constructed along the southeast border of the site. The subject property is zoned R-10.

The application is being proposed for development pursuant to the Planned Unit Development provisions of Chapter 24 of the West Linn Community Development Code (CDC). These provisions allow for greater design flexibility and for the creation of common area open space.



Vicinity Map

Stoneking Place PUD Application Page - 1 The proposed development conforms to the applicable provisions of the CDC as follows:

CHAPTER 24 – PLANNED UNIT DEVELOPMENT

24.010 PURPOSE

The purpose of the Planned Unit Development overlay zone is to provide a means for creating planned environments:

A. To produce a development which would be as good or better than that resulting from traditional lot-by-lot development.

B. To preserve, to the greatest extent possible, the existing landscape features and amenities through the use of a plan that relates the type and design of the development to a particular site.

C. To correlate comprehensively the provisions of this title and all applicable plans; to encourage developments which will provide a desirable, attractive, and stable environment in harmony with that of the surrounding area.

D. To allow flexibility in design, placement of buildings, use of open spaces, circulation facilities, off-street parking areas, and to best utilize the potentials of sites characterized by special features of geography, topography, size, and shape.

E. To allow a mixture of densities between zoning districts and plan designations when more than one district or designation is included in the development.

F. To develop projects that are compatible with neighboring development in terms of architecture, massing, and scale. Where that cannot be accomplished, appropriate transitions should be provided that are deferential or sympathetic to existing development.

G. To carry out the goals of West Linn's Vision, Imagine West Linn, especially goals relating to housing, commercial, and public facilities.

Applicant Response: The proposed development will be as good as, or better than, that which would result from the traditional subdivision process. The lots will be developed with single-family homes and will be compatible with the surrounding neighborhood in size and setbacks. The proposed development is at less than maximum density and will provide for the dedication of more than 17,000 square feet of open space. This open space will, if acceptable to the City Parks Department, be dedicated as an addition to the adjoining Douglas Park, which will increase the area of this park as well as preserve trees in this area of the site.

24.020 ADMINISTRATION AND APPROVAL PROCESS

A. The Planned Unit Development (PUD) zone is an overlay zone and the following are preconditions to filing an application:

1. Attending a pre-application conference with the City Community Development Department pursuant to CDC 99.030;

2. Attending a meeting with the respective City-recognized neighborhood association(s), per CDC 99.038, and presenting their preliminary proposal and receiving comments.

B. The application shall be filed by the owner of record or authorized agent.

C. Action on the application shall be as provided by Chapter 99 CDC, Procedures for Decision-Making: Quasi-Judicial. (Ord. 1474, 2001; Ord. 1590 § 1, 2009; Ord. 1621 § 25, 2014)

Applicant Response: The applicant attended a preapplication conference with City staff, as required by this section. A meeting with the Savanna Oaks Neighborhood Association was held on July 1, 2014. The Willamette Neighborhood Association was also invited to attend this meeting as the site is located within 500 feet of the boundary line between these neighborhoods. The application is being filed by Icon Construction and Development, LLC, which is the owner of record for the subject property. The required decision-making procedures of Chapter 99 will be followed by the City of West Linn in the review of this application.

24.030 EXPIRATION OR EXTENSION OF APPROVAL

Applicant Response: Not applicable.

24.040 NON-COMPLIANCE – BOND

Applicant Response: Not applicable.

24.050 STAGED DEVELOPMENT

The applicant may elect to develop the site in stages. "Staged development" is defined as an application that proposes numerous phases or stages to be undertaken over a period of time. Typically, the first phase will be sufficiently detailed pursuant to the submittal standards of Chapter 85 CDC. Subsequent phases shall provide the type of use(s); the land area(s) involved; the number of units; generalized location and size (square feet) of commercial, industrial, or office projects; parks and open space; street layout, access, and circulation; etc. Generalized building footprints for commercial, office, public, and multi-family projects and parking lot layout will be required. Staged development shall be subject to the provisions of CDC 99.125.

Applicant Response: Not applicable. The project will be developed in a single phase.

24.060 AREA OF APPLICATION

A. Planned unit developments (PUDs) may be established in all residential, commercial, and industrial districts on parcels of land which are suitable for and of

sufficient size to be planned and developed in a manner consistent with the purposes of this section.

B. All qualifying non-residential, all mixed use developments, and all qualifying residential developments of five or more lots shall be developed as PUDs with the Hearings Officer as the decision-making body, while all qualifying residential developments of four or fewer lots shall be developed as a PUD with the Planning Director as the decision-making body, whenever one of the following qualifying criteria apply:

1. Any development site composed of more than 25 percent of Type I or Type II lands, as defined by CDC 24.060(C), shall be developed as a PUD.

2. More than 20 percent of the dwelling units are to be attached on common wall except in the R-3 and R-2.1 zones. A PUD is not required in R-3 and R-2.1 zones where common wall/multi-family projects are proposed. However, other criteria (such as density transfer, mixed uses, etc.) may trigger a PUD.

3. A large area is specifically identified by the Planning Director or Planning Commission as needing greater design flexibility, increased open space, or a wider variety of housing types. (Ord. 1408, 1998)

Applicant Response: The applicant is proposing that this project be developed as a PUD because of the increased flexibility in design standards afforded by Chapter 24. The site does not contain more than 25 percent Type I or Type II lands and, therefore, is not required to be developed as a PUD. The property is large enough to be planned and developed in a manner that is consistent with the purposes of the PUD provisions, as demonstrated by the site plan, which provides for appropriate building sites while preserving open space that will make a beneficial addition to Douglas Park.

24.070 EXEMPTIONS FROM PLANNED UNIT DEVELOPMENT REQUIREMENTS

A planned unit development (PUD) shall not apply in cases where all the following conditions exist:

A. No density transfer is proposed pursuant to provisions of this chapter.

B. No development, construction, or grading will take place on Type I and II lands.

C. All the Type I and II lands shall be dedicated to the City as open space, or protected by easement with appropriate delineation.

Applicant Response: Density transfer is being proposed as Lot 1 and 2 are slightly less than the minimum R-10 net lot size standard of 10,000 sq. ft. The proposed development, therefore, is consistent with this section.

24.080 SUBMITTAL REQUIREMENTS

The submittal requirements shall apply to non-exempt projects as identified in CDC 55.025, and shall include the following:

- A. Narrative discussing proposal and applicability of the PUD and addressing approval criteria of this chapter and design review, CDC 55.100.
- B. Narrative and table showing applicable density calculations.
- C. Map showing how the densities will be distributed within the project site.
- D. Compliance with submittal requirements of Chapter 55 CDC, Design Review, including full response to approval criteria for Chapter 55 CDC, Design Review, and Chapter 85 CDC, if it is a single-family PUD.
- E. Narrative, tables, and showing all density transfers.
- F. Tables and maps identifying all Type I, II, III and IV lands by acreage, location and type (please refer to definitions of these lands in Chapter 02CDC).
- G. Other material as required by the Planning Director. (Ord. 1408, 1998; Ord. 1463, 2000)

Applicant Response: This narrative is provided in response to Item A. Density calculations are provided below in response to Section 24.110. The site plan shows the distribution of densities for this project. Chapter 55 of the CDC does not apply because all units are proposed to be detached single-family homes. The provisions of Chapter 85 are addressed below in this narrative. The only density transfer proposed is minor in nature, with density being transferred from the proposed open space tract to Lots 1 and 2, which are slightly under the minimum lot size of the R-10 zone. The Slope Analysis submitted with this application depicts the acreage, location and type of Types I-IV lands on the property. No other additional materials were identified for this property by the Planning Director.

24.090 APPLICABILITY AND ALLOWED USES

Applicant Response: The provisions of this section allow the PUD Overlay Zone to be applied to the subject property since it is in a residential zone. The only uses proposed are single-family detached homes and open space that will be used for outdoor recreational purposes. These uses are authorized by this section. No commercial uses are proposed.

24.100 APPROVAL CRITERIA

A. The approval criteria of CDC 55.100, design review, shall apply to non-exempted projects per CDC 55.025. Single-family detached, single-family attached, and duplex residential units proposed shall comply with the provisions of Chapter 43 CDC at time of building permit application.

Stoneking Place PUD Application Page - 5 Applicant Response: Only single-family detached homes are proposed so the approval criteria of CDC 55.025 do not apply. The provisions of Chapter 43 will be reviewed at the time of building permit application.

B. The application shall also demonstrate compliance with the following criteria:

1. The proposal shall preserve the existing amenities of the site to the greatest extent possible by relating the type and design of the development to the topography, landscape features, and natural amenities existing on the site and in the vicinity.

2. The proposed PUD shall provide a desirable, attractive, and stable environment in harmony with that of the surrounding area through thorough, welldeveloped, detailed planning and by comprehensively correlating the provisions of this code and all applicable adopted plans.

3. The placement and design of buildings, use of open spaces, circulation facilities, off-street parking areas, and landscaping shall be designed to best utilize the potentials of the site characterized by special features of geography, topography, size, and shape.

4. The PUD shall be developed so that it is compatible with neighboring development in terms of architecture, massing, and scale. Where that cannot be accomplished, appropriate transitions shall be provided that are deferential or sympathetic to existing development.

Applicant Response: The significant existing amenities of the site are the significant trees as mapped on the Tentative Plan and the trees and hillside areas located along the rear portion of this site. The significant trees will be preserved with conservation easements and the hillside areas and associated trees will be retained as open space and will not be developed. The proposed development pattern provides suitable building sites for detached single-family homes consistent with the character of the surrounding single-family neighborhood. As discussed in this narrative, this project has been designed to conform to all applicable review and approval criteria. The project is small in scale and provides for access to the six proposed lots either from existing street frontage (Lots 1 and 2) or from a proposed private driveway. The proposed location of the private drive is adjacent to a park so that the privacy of existing single-family homes in the area will not be impacted. The design of the PUD makes full advantage of the site's terrain by placing proposed building sites on the flattest area of the property and maintaining the steeper area as open space. The homes to be built on the proposed lots will be of a similar size and scale as the homes found on lots within the surrounding neighborhood.

C. All densities, density transfers, transitions, density bonuses, and proposed setbacks shall conform to provisions of this chapter as required by CDC 24.080 and 24.110 through 24.170 inclusive.

Applicant Response: As addressed in this narrative, the proposed development is consistent with these provisions.

24.110 RESIDENTIAL DENSITY CALCULATIONS

A. The PUD allows density to be transferred on residential portions of the site. The following sections explain how the allowed number of dwelling units per acre is calculated. The standards are also intended to ensure that PUDs and adjoining developments are compatible and maintain a sense of neighborhood unity.

B. Net acres for land to be developed with detached single-family dwellings, or multifamily dwellings including duplexes, is computed by subtracting the following from the gross acres:

1. Any land area which is included in a boundary street right-of-way or water course, or planned open space areas if density transfer is not requested.

2. An allocation of 25 percent for public or private facilities (e.g., streets, paths, right-of-way, etc.) or, when a tentative plat or plan has been developed, the total land area allocated for public or private facilities.

3. A lot of at least the size required by the applicable base zone, if an existing dwelling is to remain on the site.

C. The allowed density or number of dwelling units on the site, subject to the limitations in CDC 24.140 and 24.150, is computed by dividing the number of square feet in the net acres by the minimum number of square feet required for each lot, by the base zone.

Applicant Response: See Density Calculations below in response to 24.130.

24.130 ALLOWABLE DENSITY ON TYPE I AND II LANDS

Applicant Response:

This subsection provides for reduced density of development for various types of physical features that may exist on a given property. In the case of the subject property, there are minor areas of slopes in the 25% to 35% and 35-50% categories. No development is proposed in these areas. When density is transferred from these Type I and I lands, as is proposed here, the density is reduced to 75% of that normally permitted by the underlying zone. Taking into account the sloped areas of the site, density calculations are shown in Table 1, below:

	Area in Sq. Ft.
Gross Site Area	93,612
Land in a boundary street right-of-way, water course, or planned open space where density transfer is not requested	0
Area in private driveway easement:	14,570
Net Site Area:	79,042
Less minimum lot area required by R-10 zone for Existing Home:	10,000
Net Area to be Available for New Lots:	69,042
Area within Type I or II slopes where Density Will be Transferred:	4,273
Adjustment to Net Area for 75% Transfer Rate from Slopes:	67,974
Number of Additional Lots Allowed = 68,286 square feet /10,000 sq. ft./unit	6 UNITS
Total allowable density including existing home:	7 UNITS

Table 1: Density Calculations

24.140 TRANSITIONS AND LIMITATIONS ON DENSITY TRANSFER

A. Because the PUD and the provisions of this chapter allow increased residential densities and various housing types, it is necessary that some kind of transition be provided between the project site and the surrounding properties. These transitions will, for example, mitigate the impacts of multi-family housing next to single-family housing. Transitions are not required in all cases, however. The following exceptions shall apply:

1. Single-family PUD next to single-family non-PUD does not require a transition (e.g., even though it is R-5 single-family next to R-10, etc.). Also, similar type housing does not need to transition (e.g., duplex next to duplex);

Applicant Response: The subject property is being developed with lots for single-family detached homes so no transition is required.

24.150 DENSITY BONUSES

A. Although the density may be reduced by CDC 24.130, applicants are encouraged to seek density bonus credits under such categories as "site planning and design excellence." The permitted number of dwelling units may be increased up to 29 percent above those computed under the formula above based on a finding of the Planning Director that the density bonus credits have been satisfied as set forth in the following section and in CDC 24.160:

Applicant Response: No density bonuses are requested.

24.170 USABLE OPEN SPACE REQUIRED

Residential planned unit developments (PUDs) shall comply with the following usable open space requirements:

A. PUDs that contain multi-family units shall comply with the requirements of CDC 55.100(F).

Applicant Response: Not applicable. No multi-family units are proposed.

B. PUDs that contain 10 or more single-family detached, single-family attached, or duplex residential units shall comply with the following usable open space requirements.

Applicant Response: Not applicable. The proposed PUD proposes only six lots.

24.180 APPLICABILITY OF THE BASE ZONE PROVISIONS

The provisions of the base zone are applicable as follows:

A. <u>Lot dimensional standards</u>. The minimum lot size and lot depth and lot width standards do not apply except as related to the density computation under this chapter.

B. <u>Lot coverage</u>. The lot coverage provisions of the base zone shall apply for detached single-family units. For single-family attached residential units, duplex residential units, and multiple-family residential units, the following lot coverage provisions shall apply, based upon the underlying base zone.

R-40, R-20	35 percent
R-15	40 percent
R-10, R-7	45 percent
R-5, R-4.5	50 percent
R-3, R-2.1	60 percent

Applicant Response: The proposed homes will conform to the maximum 45 percent lot coverage standard for the R-10 zone.

C. <u>Building height</u>. The building height provisions of the underlying zone shall apply.

Applicant Response: The proposed homes will comply with the height standards of the R-10 zone.

D. Structure setback provisions.

1. Setback areas contiguous to the perimeter of the project shall be the same as those required by the base zone unless otherwise provided by the base zone or Chapter 55 CDC.

2. The side yard setback provisions shall not apply except that all detached structures shall maintain a minimum side yard setback of five feet, or meet the Uniform Building Code requirement for fire walls.

3. The side street setback shall be 10 feet.

4. The front yard and rear yard setbacks shall be 15 feet. Porches may encroach forward another five feet. Additional encroachments, such as porches, are allowed per Chapter 38 CDC.

5. The setback for a garage in the front yard that opens onto the street shall be 20 feet unless the provisions of CDC 41.010 apply. Garages in the rear yard may meet the standards of CDC 34.060.

6. The applicant may propose alternative setbacks. The proposed setbacks must be approved by the decision-making body and established as conditions of approval, or by amendment to conditions of approval. The decision-making body will consider among other things maintenance of privacy, adequate light, defensible space, traffic safety, etc.

Applicant Response: The proposed development will comply with these structure setbacks except as modified and shown on the Tentative Plat.

E. All other provisions of the base zone shall apply except as modified by this chapter.

Applicant Response: Plans will be reviewed at the time of building permit submittal to ensure that all other provisions of the R-10 zone are met.

24.190 PUD AMENDMENT TRIGGER

Applicant Response: Not applicable. No amendment of a prior PUD approval is being requested.

85.170(B) (2): Per the requirements of this section, a traffic analysis is required whenever a proposed development will generate traffic in excess of 250 vehicle trips per day. The ITE trip generation rate for single-family detached homes is 9.57 trips per unit. In the case of this subdivision, the total number of vehicle trips that would be expected to

Stoneking Place PUD Application Page - 10 be generated would be approximately 57 per day. Further, City staff did not identify a specific need for a traffic analysis for this project in the pre-application conference notes. For this reason, a traffic analysis is not required for this application.

85.200 APPROVAL CRITERIA

No tentative subdivision or partition plan shall be approved unless adequate public facilities will be available to provide service to the partition or subdivision area prior to final plat approval and the Planning Commission or Planning Director, as applicable, finds that the following standards have been satisfied, or can be satisfied by condition of approval.

A. <u>Streets</u>.

Comment: The subject property fronts on Haskins Road, which is fully improved to City standards. Haskins Road is a local street and has a 58 foot right-of-way, which is the upper end of the 40-60' right-of-way width specified in this section for local streets. No additional right-of-way dedication is needed. The proposed private street serving Lots 3-6 will be located within a private access and utility easement, as shown on the Site Plan. It will be subject to a maintenance agreement applicable to Lots 3-6 to ensure that it is adequately maintained to provide for access to these homes.

B. Blocks and lots.

Comment: No new blocks are proposed. The subject property is an infill lot located between Douglas Park and residential lots along Remington Dr. The proposed lots are rectangular, contain sufficient area to meet the requirements of the R-10 zone, as modified by the PUD provisions. The lots have buildable depths that do not exceed 2.5 times their width.

The proposed private driveway will conform to the provisions of Chapter 48 CDC, Access, Egress and Circulation. No through lots or parcels are proposed. The proposed lot lines are approximately at right angles to the streets.

The proposed lots are not large enough to allow for future re-division under the provisions of the R-10 zone.

C. Pedestrian and bicycle trails.

Comment: Not applicable. Haskins Rd. is not indicated in the City Pedestrian Master Plan as a roadway with sidewalk deficiencies or bicycle deficiencies. No bicycle land improvements were listed on the Bicycle Master Plan.

D. Transit facilities.

Comment: Not applicable. No transit facilities are proposed or required in this area.

E. Lot grading.

Comment: Grading of the proposed building site will conform to City standards. Preliminary grading plans for the street area is shown on the Preliminary Grading Plan submitted with this application. Compliance for individual homes will be reviewed at the time of building permit application.

F. <u>Water</u>.

Comment: City water is available in Haskins Road and all lots will be served from this line. Lots 1 and 2 will have direct access from this line. Individual water meters for Lots 3-6 will be located in the right-of-way of Haskins Road and separate house service lines will be extended to the lots within the private street easement area. No new public water lines will be required.

G. <u>Sewer</u>.

Comment: As shown on the Site Plan, there is an existing public sewer line located in Haskins Road at the northeast corner of the subject property. This line will be extended in the street to the private street intersection and will then be extended in the private street to serve Lots 3 and 4. Lots 5 and 6 will make use of an existing private utility easement between Tax Lots 2200 and 2300 to obtain sewer service from Remington Drive.

H. Storm.

Comment: Storm sewer is also available in Haskins Road at the northwest corner of the subject property. As discussed in the preliminary storm report submitted with this application, lots will make use of rain gardens on each lot to provide for runoff from roof and foundation drains. For Lots 1, 2 & 3, an existing storm sewer line in Haskins Road will be extended to provide for overflow from the rain gardens. Lots 4, 5 & 6 will have their overflows to infiltration areas in the proposed open space. Please refer to the storm report for more detail.

- I. <u>Utility easements</u>. Utility easements are shown on the plans submitted with this application.
- J. <u>Supplemental provisions</u>.
 - 1. <u>Wetland and natural drainageways</u>. Comment: No wetlands or drainageways exist on the subject property or adjacent to this site.
 - 2. <u>Willamette and Tualatin Greenways</u>. Comment: Not applicable. The site is not located in a greenway area.

- 3. <u>Street trees</u>. Comment: Street trees will be provided as required. Existing trees along the private street where it borders Douglas Park are proposed to be preserved.
- 4. <u>Lighting</u>. Comment: Prior to final plat approval an analysis of existing street lighting will be conducted and, if necessary, improvements made to comply with these standards.
- 5. <u>Dedications and exactions</u>. Comment: No new dedications or exactions are anticipated in conjunction with this partition.
- 6. <u>Underground utilities</u>. Comment: All utilities are proposed to be underground, as required by this section.
- 7. <u>Density requirement</u>. Comment: The density calculations submitted with this application demonstrate that the maximum density permitted on this site is 7 units. The proposed density of 6 units satisfies the minimum density standard.
- 8. <u>Mix requirement</u>. Comment: Not applicable. This requirement only applies in the R-2.1 and R-3 zones. The subject property is zoned R-10.
- 9. <u>Heritage trees/significant tree and tree cluster protection</u>. Comment: No heritage trees, as defined in the Municipal Code, are present on the site. Other existing trees are mapped on the Site Plan. No trees are proposed to be removed at this time.
- 10. <u>Annexation and street lights</u>. Comment: Not applicable. The subject property is within the city limits.

Chapter 48 - ACCESS, EGRESS AND CIRCULATION

48.025 ACCESS CONTROL

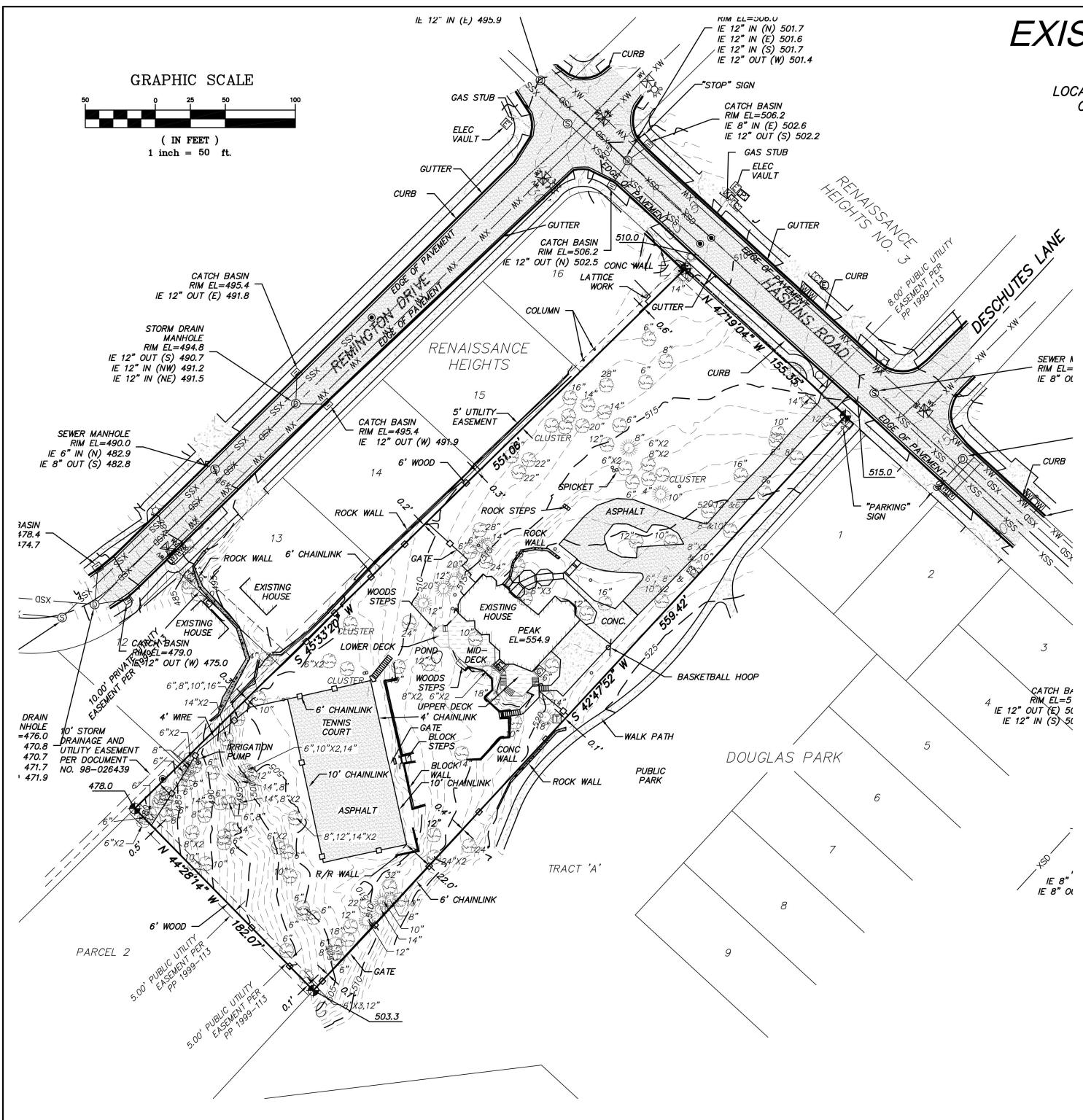
- B. Access control standards.
 - 6. Access spacing. The access spacing standards found in Chapter 8 of the adopted Transportation System Plan (TSP) shall be applicable to all newly established public street intersections, private drives, and non-traversable medians.

Comment: In accordance with these provisions, a minimum spacing of 50 feet is required between driveway approaches. In the case of this application, this standard may only be met by providing a shared driveway approach for Lots 1 and 2 onto Haskins Road. The Tentative Plan shows the use of a shared driveway for these two lots. Discussions with City staff indicate that an amendment to this standard is under consideration by staff and may be taken to the Planning Commission and City Council for public hearing. It is the applicant's preference that Lots 1 and 2 each be permitted a separate driveway approach onto Haskins Road. Therefore, we request that the following language be added to the conditions of approval for this project:

"Lots 1 and 2 shall have a shared driveway approach onto Haskins Road. In the event that a proposed amendment to Section 48.025(B)(6) is adopted by the City of West Linn such that the minimum spacing standards would no longer require a shared driveway approach, then Lots 1 and 2 may be permitted to have separate driveway approaches to this street."

48.030 MINIMUM VEHICULAR REQUIREMENTS FOR RESIDENTIAL USES

Comment: Consistent with the requirements of this section, each lot will have access complying with these standards. Lots 1 and 2 are shown as sharing a driveway onto Haskins Road (note, see discussion above regarding proposed code changes that may allow each to have direct access to Haskins Road). Haskins Road is not an arterial street so prohibitions on access to such streets do not apply. Lots 3 through 6 will share access via a private driveway. Access will not exceed the 4 lot maximum for such private driveways. The private driveway meets the 20' pavement standard and an emergency vehicle turn-around is provided.



EXISTING CONDITIONS MAP

PARCEL 1, PARTITION PLAT NO. 1999–113, LOCATED IN THE N.E. 1/4 SECTION 35, T.2S., R.1E., W.M., CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON MAY 7, 2014 SCALE 1"=50'

SURVEY NOTES:

THE DATUM FOR THIS SURVEY IS BASED UPON CITY OF WEST LINN MANHOLE "9C-4-15-8-2-4", RIM ELEV.=515.26. (NAVD88)

A TRIMBLE S6-SERIES ROBOTIC INSTRUMENT WAS USED TO COMPLETE A CLOSED LOOP FIELD TRAVERSE.

AREA OF SUBJECT PARCEL: 93,612 S.F. OR 2.15 ACRES

THE BASIS OF BEARINGS FOR THIS SURVEY IS PER MONUMENTS FOUND AND HELD PER RECORD OF SURVEY RECORDED UNDER PARTITION PLAT NUMBER 1999–113, RECORDS OF CLACKAMAS COUNTY.

THE PURPOSE OF THIS SURVEY IS TO RESOLVE AND DETERMINE THE PERIMETER BOUNDARY OF THE SUBJECT PROPERTY, TO SHOW ALL PERTINENT BOUNDARY ISSUES AND ENCROACHMENTS. NO PROPERTY CORNERS WERE SET IN THIS SURVEY.

NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUIESCENCE, ETC.

FIDELITY NATIONAL TITLE COMPANY OF OREGON PRELIMINARY TITLE REPORT NUMBER 20140093237-FTPOR55, DATED APRIL 14, 2014 AS PROVIDED HAS BEEN USED AND REFERENCED IN PREPARATION OF THIS MAP. PLEASE REFER TO THIS DOCUMENT FOR DESCRIPTIONS OF EXCEPTIONS TO TITLE INSURANCE.

INVERT ELEVATION DATA IS LOCATED ON A CAD LAYER WITHIN THIS DOCUMENT ELECTRONICALLY.

LEGEND:

Some Symbols shown may not be used on map

Contraction the second	င်္နာ ကို	UTILITY AND LIGHT POLE
EVERGREEN TREE	\rightarrow	GUY WRE
D STORM SEWER MANHOLE	°	TRAFFIC SIGNAL POLE
SANITARY SEWER CLEANOUT	PI	ELECTRICAL POWER PEDESTAL
E CATCH BASIN		COMMUNICATIONS PEDESTAL
S SANITARY SEWER MANHOLE	Ō	COMMUNICATIONS MANHOLE
WW WATER VALVE	—— хон ——	OVERHEAD LINE
W WATER METER	XG	GAS LINE
💢 FIRE HYDRANT	XE	ELECTRICAL LINE
• IRRIGATION CONTROL VALVE	—— хсом ——	COMMUNICATIONS LINE
🕅 GAS VALVE	xss	SANITARY SEWER LINE
G GAS METER	XSD	STORM DRAIN LINE
SIGN	xw	WATER LINE
☐ MAILBOX	-00	FENCELINE
C UTILITY POLE	Ē	ELECTRIC RISER
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E ELECTRIC METER	Ē	ELECTRICAL TRANSFORMER
	SIGNED ON:	9-26-2014
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LAN 729 ORE PHONE 50	ERLINE D SURVE MOLALLA AVE. EGON CITY, OR 03.650.0188	DECEMBER 31, 2015 CONCEPTS YING, INC. , SUITE 1 & 2 EGON 97045 FAX 503.650.0189 WS ROAD\dwg\ECM.dwg

Preliminary Storm Drainage Report

2900 SW Haskins Road, West Linn

Site Conditions:

This parcel is approximately 1.7 acres that will be developed into residential use with on existing house that will remain on one of the lots. The Part that is to be developed slopes from a high point at approximately the existing house towards SW Haskins and away into future open space. Access to the public storm sewer is limited, but with the large lots there is ample room for on-site disposal of the impervious roof water. The private drive will continue to shed to one side and a drain-rock section will collect the surface water.

Hydrologic Soils Group:

The Oregon Soil Survey was used to determine the soil type and Hydrologic Soil Group.

Map unit symbol	map unit name	rating	
78C	Saum silt loam	С	

Group C soils have a moderate infiltration rate when thoroughly wet. The Oregon Soil Survey lists the infiltration rate at 6.5410 microns/ second or approximately 1 inches/hr

Proposed Solution:

Using The Oregon Rain Garden Guide, and the King County Hydrographic program the proposed RAIN GARDEN and infiltration trench was sized to collect the impervious roof water from the proposed residential house and a gravel trench for the driveway

Impervious area house estimate: 3000 Sq ft. = 0.07acres

CN - SCS Curve Number 98 roof

Storm Event- A ten year storm event was used to size the facility

ROOF AREA-----

KING COUNTY DEPARTMENT OF PUBLIC WORKS

Surface Water Management Division

HYDROGRAPH PROGRAMS

Version 4.21B

1 - INFO ON THIS PROGRAM

2 - SBUHYD

ENTER OPTION: 2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION 1	4 - 5 - 7 - 8 - 9 - 10 11	MODIFIELD SBUHYD ROUTE ROUTE2 ADDHYD BASEFLOW PLOTHYD DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	4 - 5 - 7 - 8 - 9 - 10 11	ROUTE ROUTE2 ADDHYD BASEFLOW PLOTHYD DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	5 - 6 - 7 - 8 - 9 - 10 11	ROUTE2 ADDHYD BASEFLOW PLOTHYD DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	6 - 7 - 8 - 9 - 10 11	ADDHYD BASEFLOW PLOTHYD DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	7 - 8 - 9 - 10 11	BASEFLOW PLOTHYD DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	8 - 9 - 10 11	PLOTHYD DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	9 - 10 11	DTATA - REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	10 11 R COMPUTING RUNOFF	- REFAC - RETURN TO DOS		
2 SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	11 R COMPUTING RUNOFF	- RETURN TO DOS		
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SBUN/SCS METHOD FOR STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION		HYDROGRAPH		
STORM OPTIONS; 1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION		HYDROGRAPH		
1 - S.C.S. TYPE-1A 2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	М			
2 - 7-DAY DESING STORM 3 - STORM DATA FILE SPECIFY STORM OPTION	М			
3 - STORM DATA FILE SPECIFY STORM OPTION	М			
SPECIFY STORM OPTION				
1	1:			
1				
S.C.S. TYPE-1A RAINFALL	LDISTRIBUTION			
ENTER: FREQ(YEAR), DU	RATION(HOUR), PRECIP	P(INCHES)		
10,24,3.20				
Xxxxxxxxxxxxxxxxxx	x S.C.S.TYPE-1A DISTRIB	BUTION xxxxxxxxxxxxxxxxx	****	xxxxxx
XXXXXXXXXXXX 10-YEA	AR 24-HOUR STORM	xxxx 3.20" TOTAL PRECIP	. Xxxxxxxxxxxxxxxxxxxxxx	xxxxxx
ENTER: A(PERV),CN(PER	V),A(IMPERV),CN(IMPE	RV),TC FOR BASIN NO. 1		
0.0,86,0.07,98,5				
DATA PRINT OUT:				
AREA(ACRES)	PERVIOUS	IMPERVIOUS	TC(MINUTES)	

	A CN	A CN		
.1	.0 86	.1 98	5.0	
PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)		
.06	7.67	754		
ENTER [d:][path]file	name[.ext] FOR STORAGE	OF COMPUTED HYDROGI	RAPH:	
C:sun				
SPECIFY: C - CONT	INUE, N - NEWSTORM,	P - PRINT, S - STOP		
S				
ENTER OPTION:				
10				
R/D FACILITY DESI	GN ROUTINE			
SPECIFY TYPE OF F	A/D FACILITY:			
1 - POND	4 - INFILTRATION	4 - INFILTRATION POND		
2 - TANK	5 - INFILTRATION	5 - INFILTRATION TANK		
3 - VAULT	6 - GRAVEL TREN	ICH/BED		
4				
ENTER: POND SIDE	SLOPE (HORIZ. COMP	ONENT)		
3				
ENTER: EFFECTIVE	STORAGE DEPTH(ft) BE	FORE OVERFLOW		
.5				
ENTER: VERT-PERM	l(min/in) PERM-SURFA	CE (0 = SIDES ONLY, 1 =	SIDES AND BOTTOM)	
60,1				
ENTER [d:][path]fil	ename[.ext]OF PRIMA	RY DESIGN INFLOW HYD	ROGRAPH:	
C:sun				
PRIMARY DESIGN I	NFLOW PEAK = .06 C	FS		
ENTER PRIMARY D	ESIGN RELEASE RATE(cf	fs):		
0				

ENTER NUMBER OF INFLOW HYDROGRAPHS TO BE TESTED FOR PERFORMANCE (5 MAXIMUM) 0 ENTER: NUMBER OF ORIFICES, RISER-HEAD(*ft), RISER-DIAMETER(in) 0,0.5,6 RISER OVERFLOW DEPTH FOR PRIMARY PEAK INFLOW = .05 ft SPECIFY ITERATION DSIPLAY: Y - YES, N - NO N SPECIFY: R - REVIEW/REVISE INPUT, C - CONTINUE С INITIAL STORAGE VALUE FOR ITERATION PURPOSES: 888 CU-FT PERFORMANCE: INFLOW TARGET-OUTFLOW ACTUAL-OUTFLOW PK-STAKE STORAGE DESIGN HYD: .06 .00 .00 .67 224

Preliminary Design Solution:

Impervious Roof:

A circular rain garden approximately 17-feet in diameter and 8" deep with an additional 2" overflow depth would be sufficient for 3000 sq ft of impervious area. The final design will size the facility based on the actual impervious roof area.

Conclusion:

Infiltration of the new impervious surfaces is a satisfactory solution for this development.

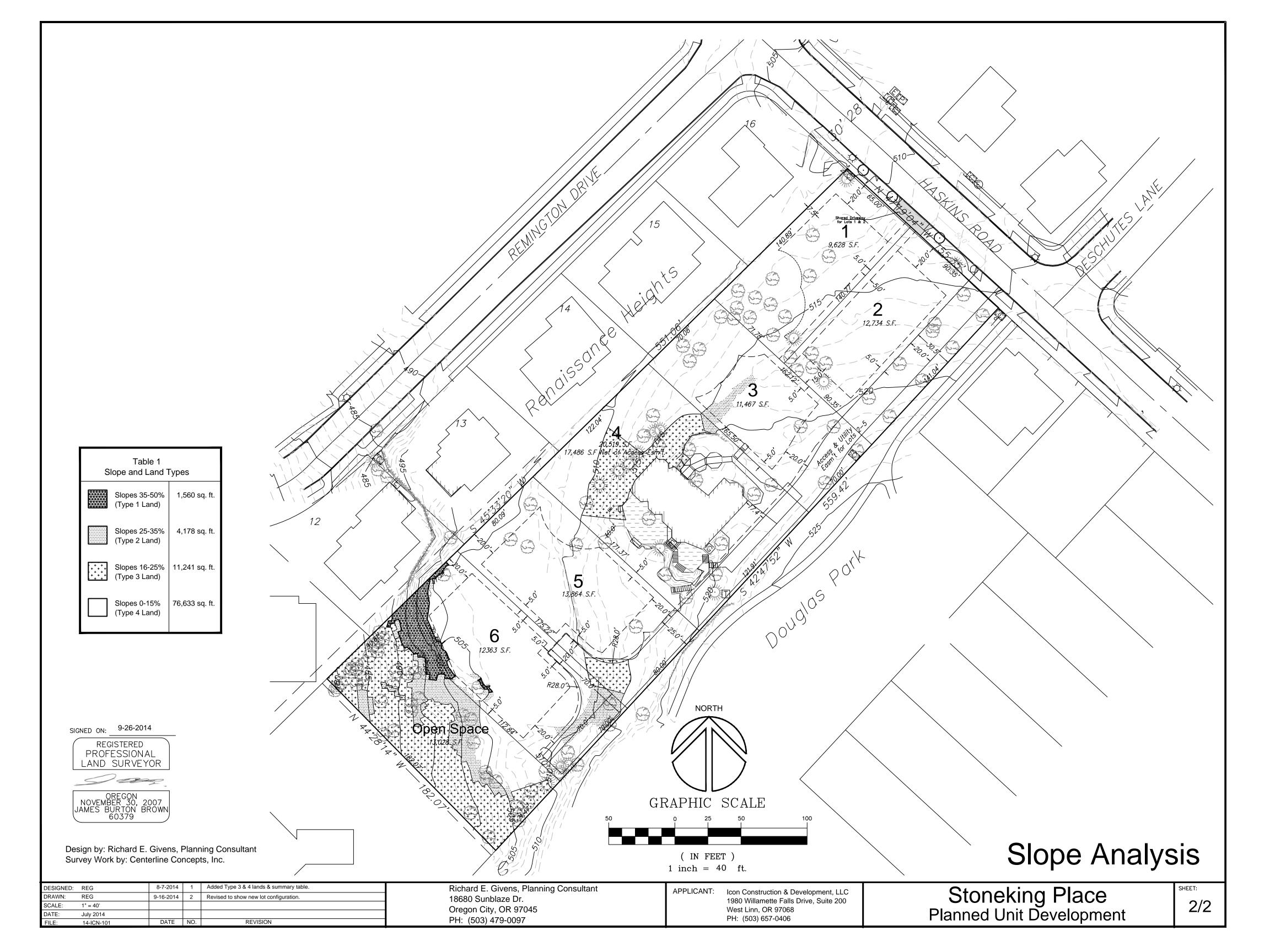
Prepared By:

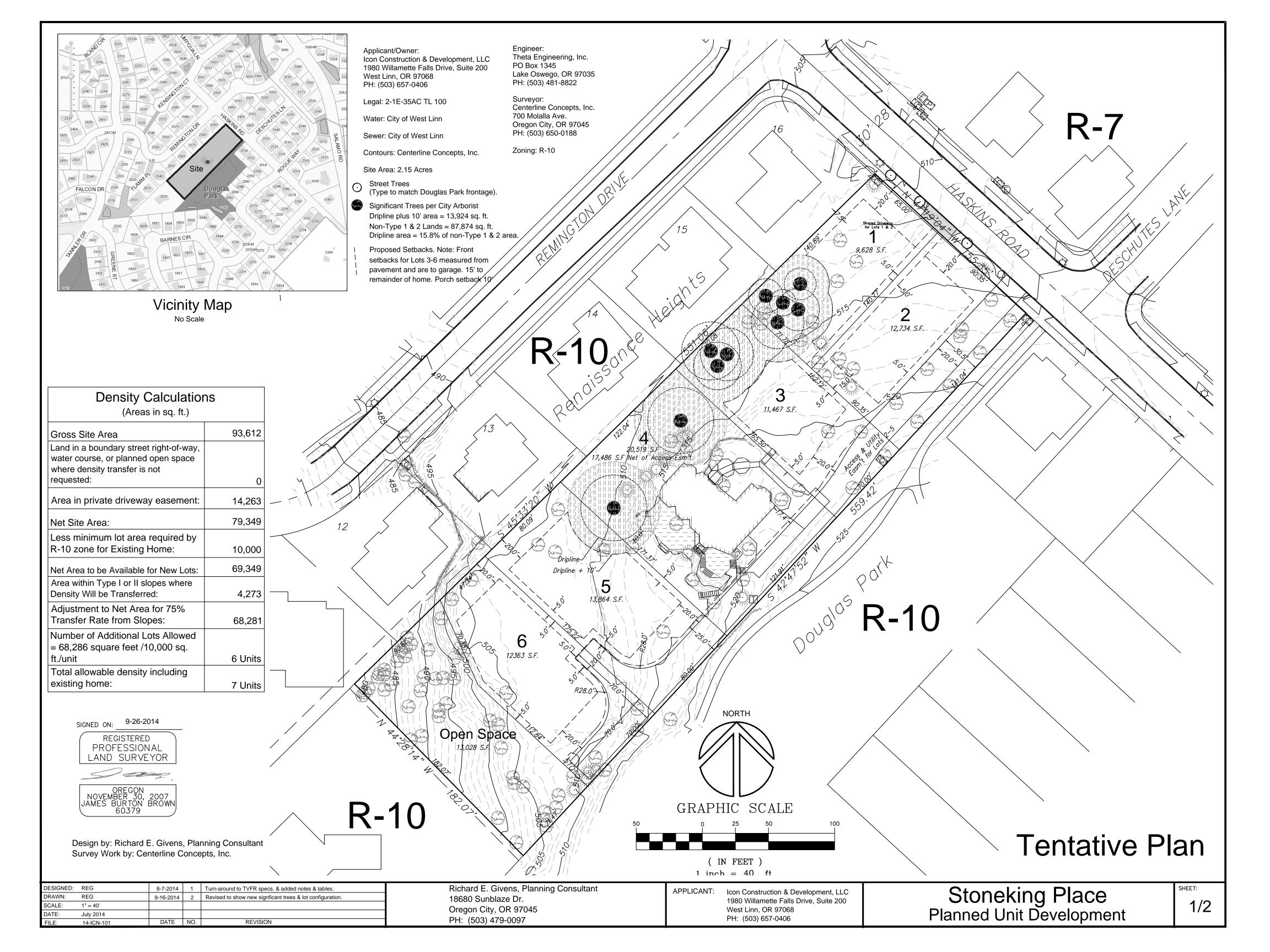
Bruce D. Goldson, PE

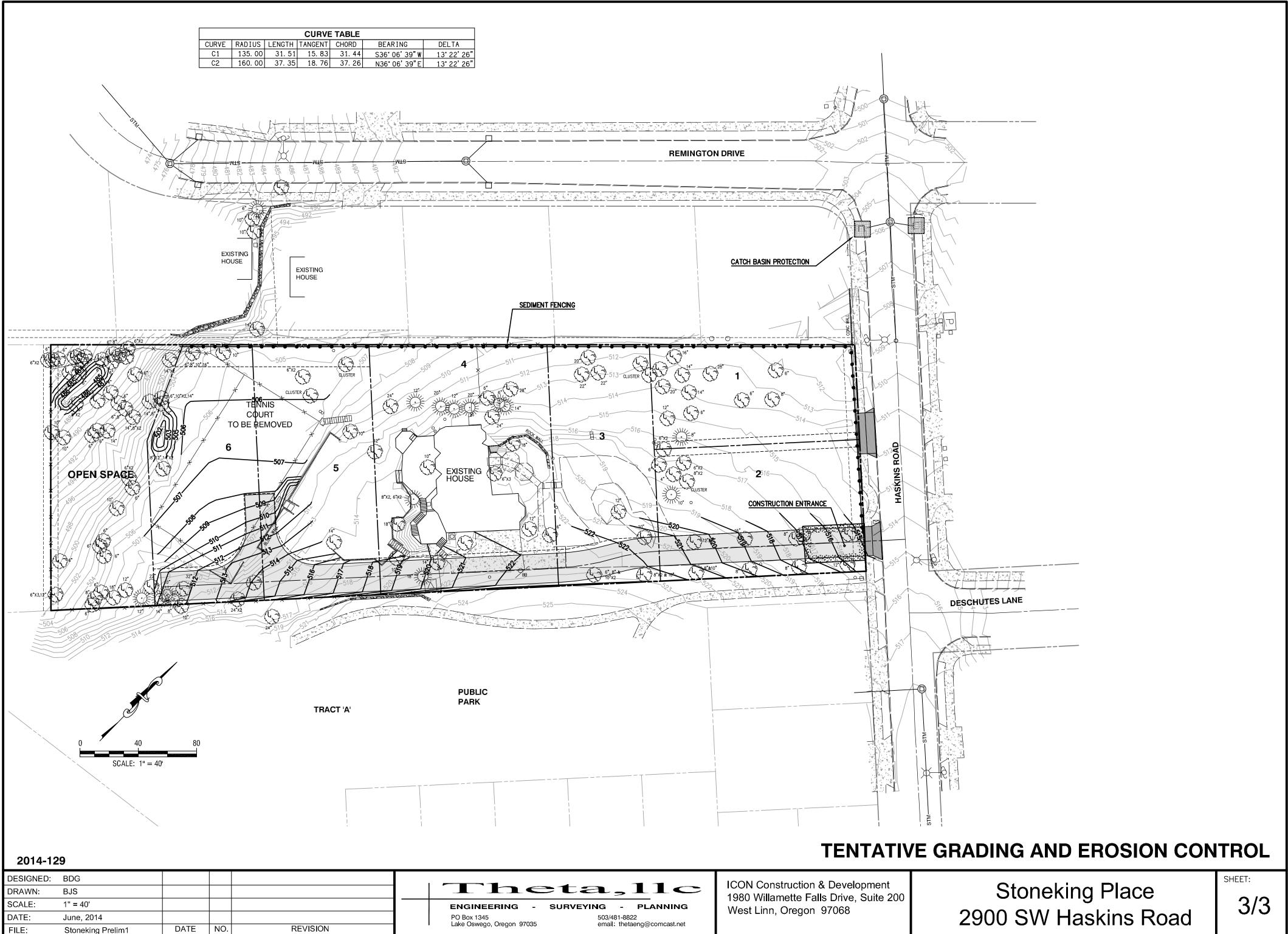
Theta, llc

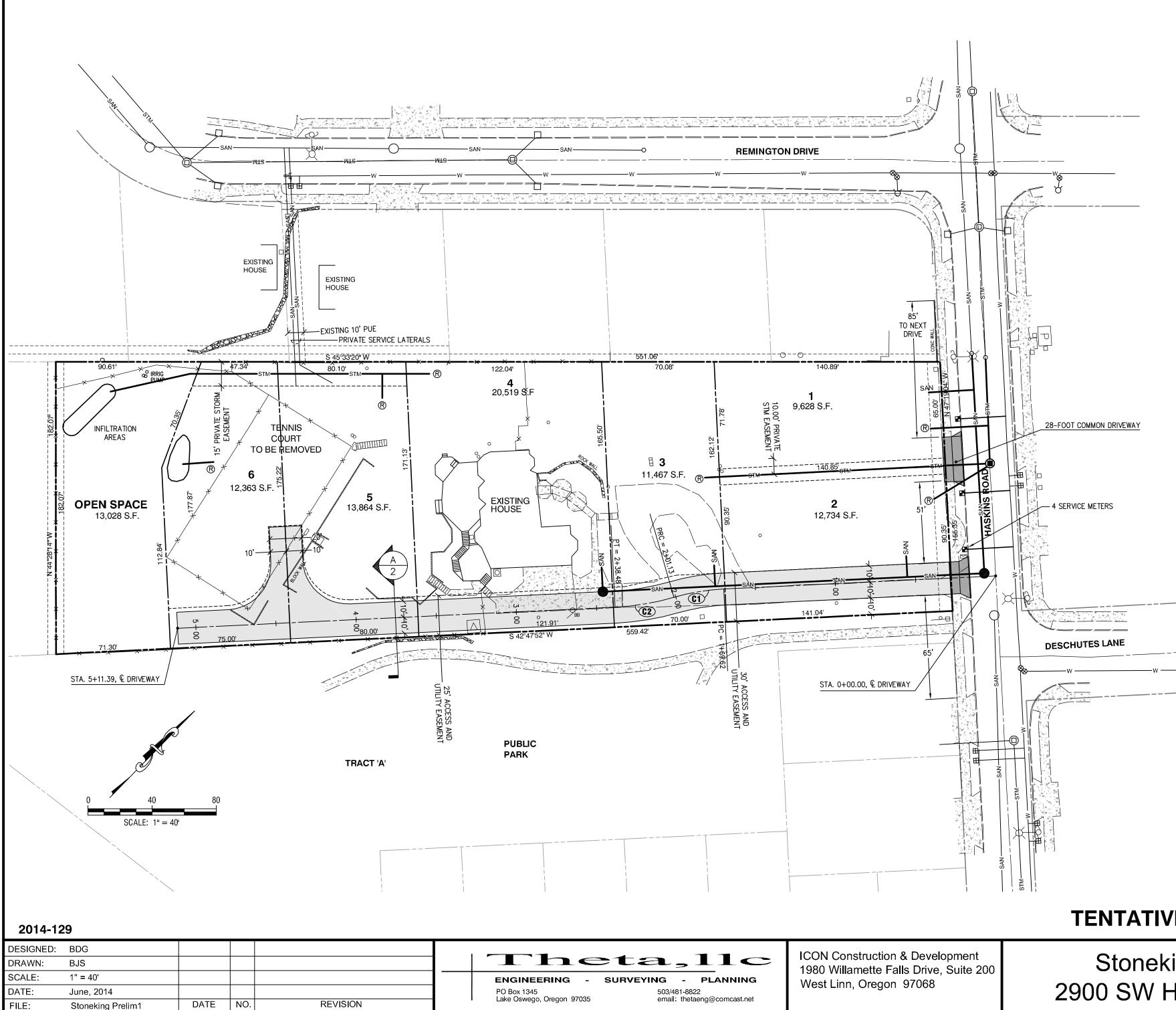
June 30, 2014











APPLICANT:

Icon Construction & Development, LLC 1980 Willamette Falls Drive, Suite 200 West Linn, OR 97068 PH: (503) 657-0406

PLANNER:

Richard Givens, Planning Consultant 18680 Sunblaze Drive Oregon City, Oregon 97045

ENGINEER:

Bruce Goldson, P.E. Theta LLC PO Box 1345 Lake Oswego, OR 97035 PH: (503) 481-8822

SURVEYOR

Centerline Concepts 729 Molalla Avenue No. 1&2 Oregon City, Oregon 97045 Ph. 503-650-0188

Legal: 2-1E-35AC TL 100

Water: City of West Linn

Sewer: City of West Linn

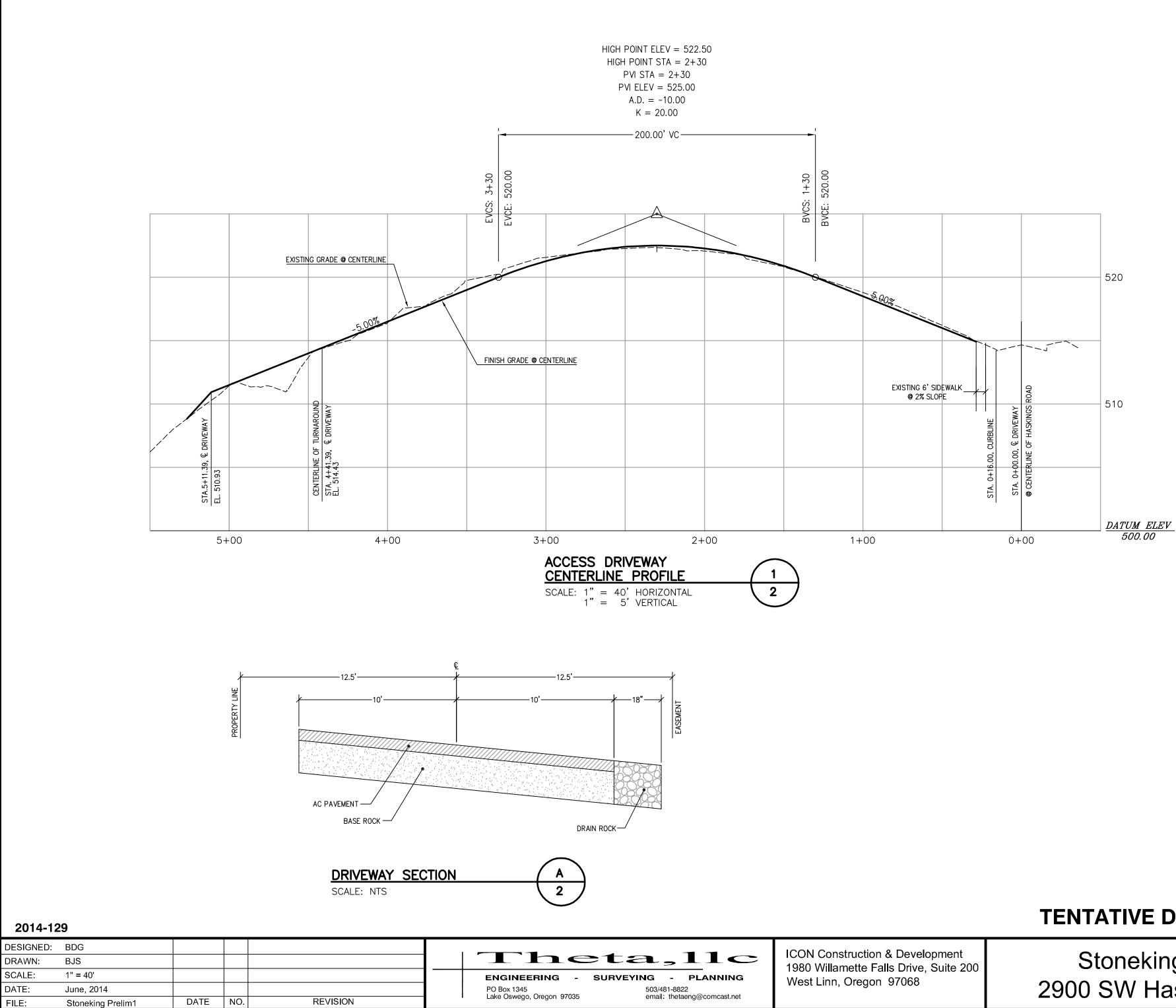
Contours: Centerline Concepts, Inc.

Site Area: 2.15 Acres Zoning: R-10

TENTATIVE UTILITY PLAN PLAN

Stoneking Place 2900 SW Haskins Road SHEET:

1/3



TENTATIVE DRIVEWAY PROFILE

Stoneking Place 2900 SW Haskins Road SHEET:

2/3