EXHIBIT G

LETTERS OF CONCURRENCE

SOUNDTRANSIT

January 19, 2018

Maxine Whattam
Interim Public Works Director
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 01 DRLE: NE 70th St Right of Way adjacent to Station

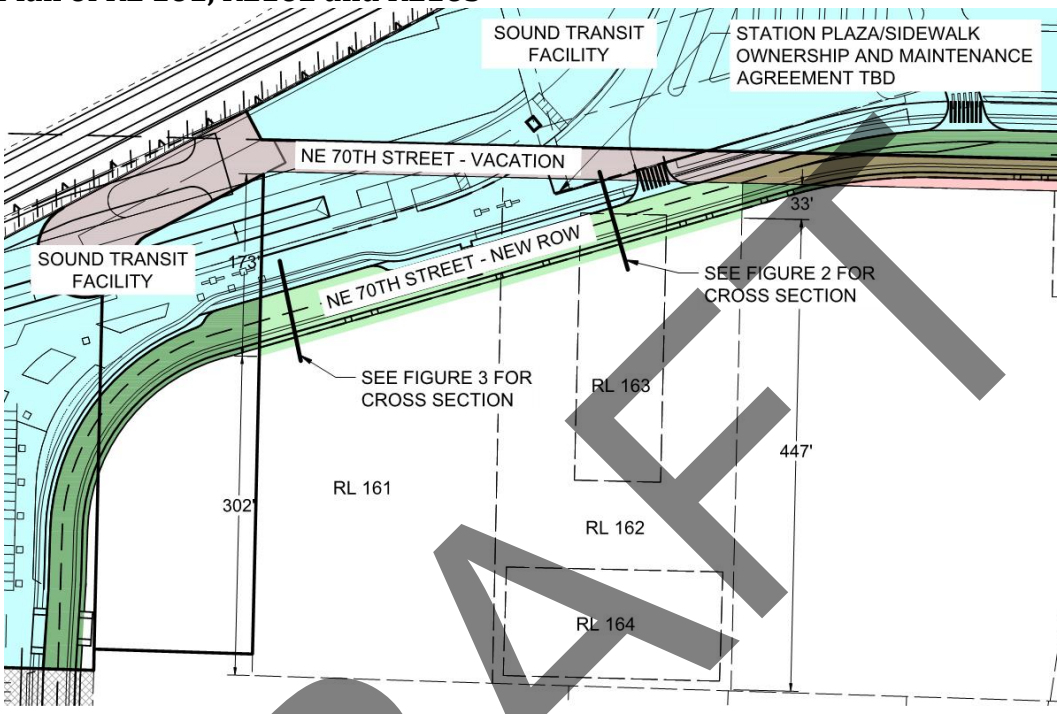
Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on the required right-of-way needed for the redesigned NE 70th Street. Concurrence on the required ROW is needed to determine Sound Transit acquisition to construct its light rail project in Marymoor Village.

The redesign of NE 70th Street as shown in Figure 1 assumes an application for and approval of a street vacation request for that portion of the existing NE 70th Street ROW to be integrated with Sound Transit's project. The vacation will allow for the construction of the project and result in the relocation of NE 70th Street within newly-dedicated ROW to the south of its current location. The design requires partial acquisition of three parcels described as RL 161, RL 162, and RL 163, as shown in Figure 1. These parcels are defined per King County Tax Assessor's data under Definitions.

The letter of concurrence relates only to the southern portion of the proposed NE 70th Street ROW, determined by the centerline of roadway, on parcels RL 161, RL 162, and RL 163.

FIGURE 1: Plan of RL 161, RL162 and RL163



NE 70th Street is defined as a Type 1 street in Redmond Zoning Code Appendix 8A, Marymoor Subarea Street Requirements. The typical cross section and ROW width for a Type 1 street is shown in Appendix 8A of the City of Redmond Zoning Code and is the basis for the ROW that will be acquired for NE 70th Street as part of the light rail project.

The proposed street cross sections, adjacent to parcels RL 161, RL 162, and RL 163, are attached as Figure 2 and Figure 3. These cross sections are for reference only in order to inform ROW acquisition. The City and Sound Transit will determine the specific street section to be built as part of the DRLE project and document that decision separately. The figures illustrate the City of Redmond's full build out of the street, and Sound Transit's DRLE build out. In both cases, Sound Transit will build the complete street section north of the centerline and an interim section south of the centerline, as shown in Figures 2 & 3. The full build out will be the future responsibility of the City or adjacent property owners.

Figure 2 is shown at the parcel adjacent to the Sound Transit parking garage. In this section, the DRLE project will acquire 32 feet of ROW south of the future centerline of NE 70th Street. Figure 3 is shown at the parcel adjacent to the Sound Transit station plaza. In this section, the DRLE project will acquire 32 feet of ROW south of the future centerline of NE 70th Street.

A future transaction will transfer the ownership to the City of Redmond.

Definitions

Parcels identified for partial acquisition for the NE 70th relocated street include the following:

Sound Transit R/W No.	King Co. Parcel No.	Parcel Area
RL 161	1225059183	108,752
RL 162	122505TRCT	67,276
RL 163	1225059260	20,622

References
Figure 2 – NE 70th Street Cross Sections at Garage
Figure 3 – NE 70th Street Cross Sections at Station Plaza

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen
Corridor Design Manager, DRLE

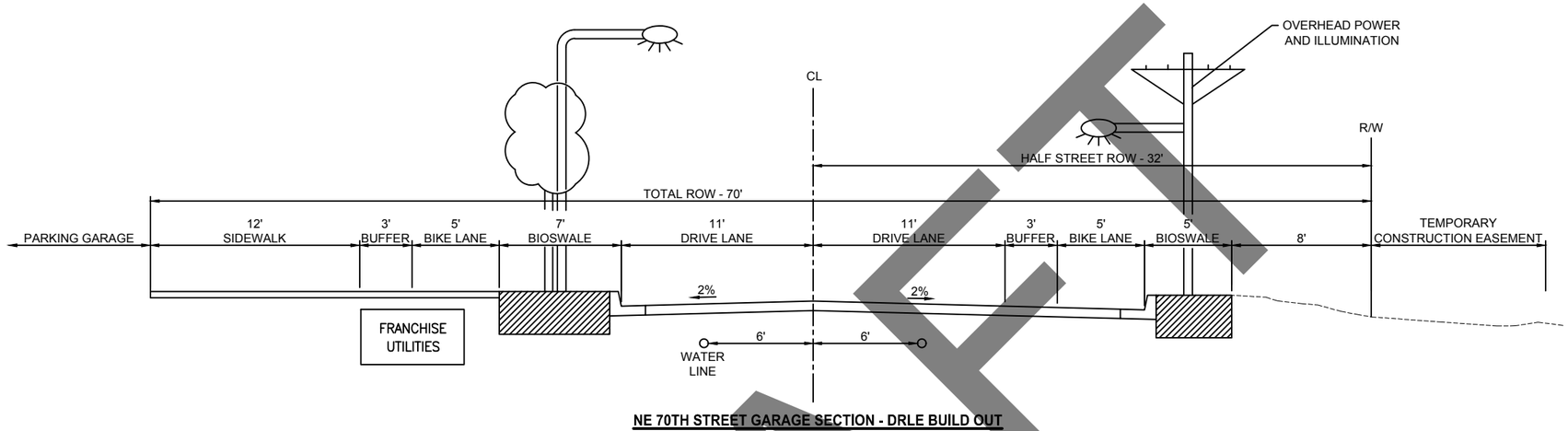
A. DeWitt Jensen 1/23/18

Concurrence:

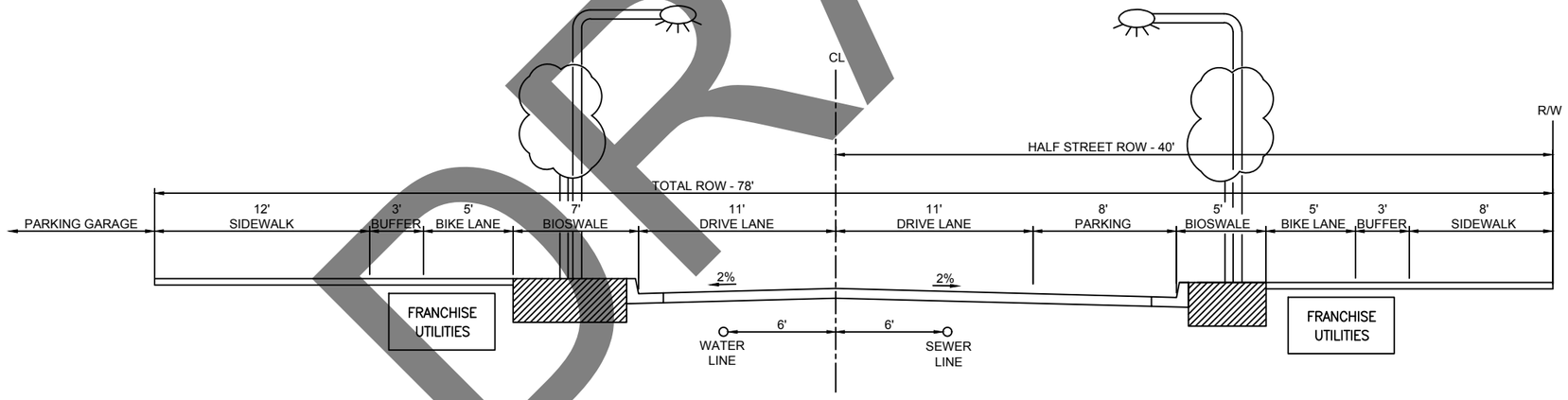
MWhattam / 1/23/18

Maxine Whattam Date
Interim Public Works Director
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control



NE 70TH STREET GARAGE SECTION - DRLE BUILD OUT



NE 70TH STREET GARAGE SECTION - FULL BUILD OUT *

*Future project specific analysis to determine final build out.

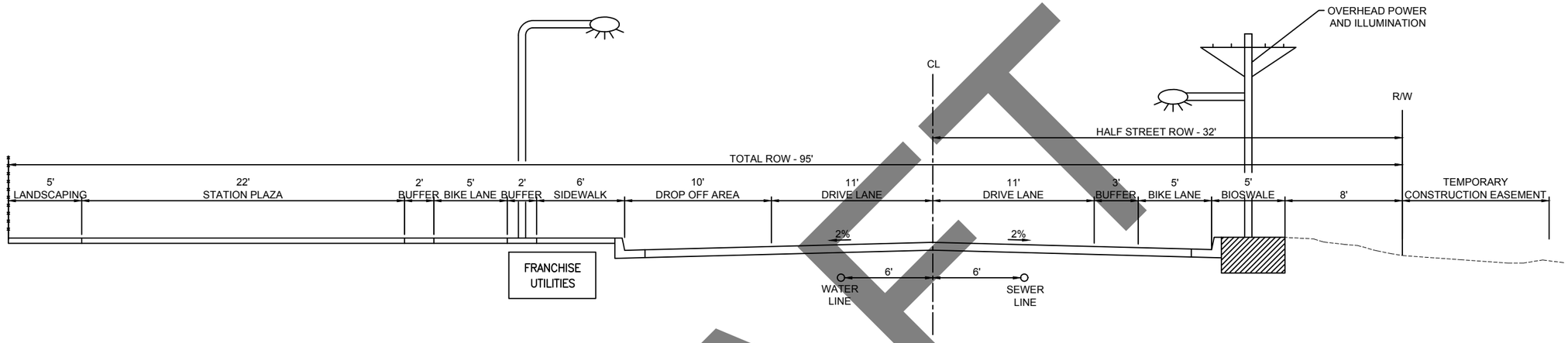
SOUNDTRANSIT

DOWNTOWN REDMOND LINK EXTENSION

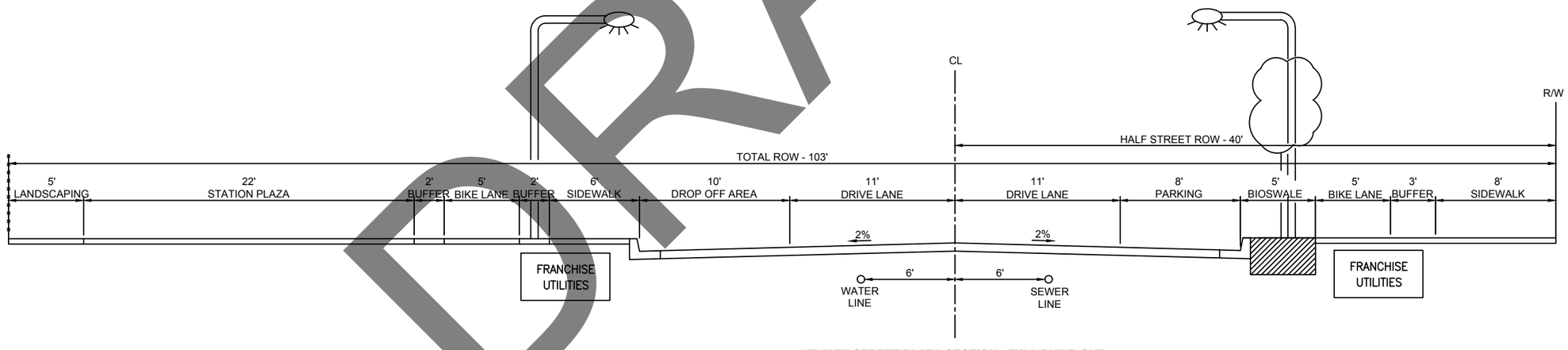
NE 70TH STREET CROSS SECTIONS AT GARAGE

FIGURE 2

1/19/18



NE 70TH STREET PLAZA SECTION - DRLE BUILD OUT



NE 70TH STREET PLAZA SECTION - FULL BUILD OUT*

*Future project specific analysis to determine final build out.

DOWNTOWN REDMOND LINK EXTENSION
NE 70TH STREET CROSS SECTIONS AT STATION PLAZA
FIGURE 3

1/19/18

SOUNDTRANSIT

April 16, 2018

Maxine Whattam
Parks and Recreation Director
City of Redmond
PO Box 97010
Redmond, WA 98073-9710

Downtown Redmond Link Extension, Letter of Concurrence
LOC 02 DRLE: Section 4(f) Impacts

Dear Ms. Whattam:

The East Link Final Environmental Impact Statement (FEIS), published in 2011, evaluated the extension of light rail from Seattle to Downtown Redmond. The Sound Transit Board selected the alignment in 2011, but funding allowed the design and construction only through the Overlake Transit Center (now the Redmond Technology Center). With funding now available to complete East Link to downtown Redmond, the Federal Transit Administration (FTA) and Sound Transit are updating the review of potential environmental impacts for the Downtown Redmond Link Extension, which will extend light rail from Redmond Technology Center to downtown Redmond. This review includes updating analysis to reflect changed conditions since 2011 as well as design refinements that reflect continued coordination with the City of Redmond, King County, and the Washington Department of Transportation.

As part of the update, Sound Transit and FTA are evaluating the potential for changes in impacts on public parks and recreational facilities and preparing a Section 4(f) Evaluation that describes the impacts of the project on Section 4(f) properties. Section 4(f) property means publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (23 CFR 774.17).

As part of the review of potential environmental impacts of the proposed design refinements, Sound Transit identified three resources that were not previously addressed under Section 4(f) as part of the East Link FEIS: property at 154th Avenue NE, Bridle Crest Trail, and Bear Creek Park. Potential impacts of the proposed design refinements to Bear Creek Trail and these additional resources are summarized below.

Although the FEIS evaluated Section 4(f) impacts to the Redmond Central Connector, as a railbanked corridor, the Redmond Central Connector is exempt from Section 4(f) (23 CFR 774.11(h)). The facility remains an important recreation resource, however, and Sound Transit will provide the mitigation identified in the FEIS, which consists of rerouting or realigning trail, relocating displaced features within the Central Connector right-of-way in consultation with the City of Redmond, financial compensation for temporary use of land, maintaining access or providing detours during construction, and restoring temporarily disturbed areas.

Sound Transit appreciates the coordination with city staff. The purpose of this letter is to confirm previous discussions and formally document our request for the City's concurrence on the exemption of the impacts to the additional three resources from Section 4(f).

Section 4(f)

The U.S. Department of Transportation Act of 1966 requires a Section 4(f) Evaluation. Under the Act, FTA cannot approve a transportation project that requires the use a Section 4(f) resource unless there is no feasible and prudent avoidance alternative or the use of the property, including any measure(s) to minimize harm will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f) (*de minimis* impact).

In addition, temporary occupancies of land that are so minimal as to not constitute a use are exempt from Section 4(f) approval. In order to qualify as a temporary occupancy, the following conditions must be satisfied (774.13(d)):

- Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in the ownership of the land;
- Scope of the work must be minor, i.e., both the nature and magnitude of the changes to the Section 4(f) property are minimal;
- There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- The land being used must be fully restored;

Bear Creek Trail

As part of the East Link FEIS Section 4(f) evaluation, Sound Transit and FTA consulted with the City of Redmond, which concurred with the determination that impacts to Bear Creek Trail with the included measures to minimize harm were *de minimis* in its March 9, 2011 letter (attached). The proposed design refinements would reduce impacts to this trail, by slightly decreasing the area of trail shaded by the aerial structure and by lowering the trail only one to three feet rather than the 20 feet required by the previously adopted project. During construction, Sound Transit would maintain access or provide detours. Sound Transit would reconnect the trail under the guideway and restore vegetation consistent with clear zone requirements for the light rail guideway. Therefore, pursuant to 23 CFR § 774.9, the proposed design refinements do not result in 1) a substantial increase in the amount of Section 4(f) property used, 2) a substantial increase in the adverse impacts to Section 4(f) property, or 3) a substantial reduction in the measures to minimize harm as compared to the analysis in the FEIS Section 4(f) analysis, and a new Section 4(f) approval is not required.

Property at 154th Avenue NE

The FEIS did not identify this property as a park, and it was not evaluated in the parks and recreation impact analysis or under Section 4(f). The City's Parks Arts Recreation Culture Conservation Plan indicates this property, currently undeveloped, would be developed in the future as a Neighborhood Park. Based on our consultation with city staff, we understand the City does not have programmed funding for development of this property. This property is currently not used for recreation and has no facilities or identification signage. The 1.27 acre triangle shaped parcel is along the east side of SR 520, separated from SR 520 by a noise wall. The proposed design refinements would require approximately .1 acres of the western side of the property for the guideway and relocated sound wall (see enclosed map). In addition, there would be an underground easement of approximately .15 acres for a noise wall footing and guideway tiebacks. Temporary construction impacts would use approximately .25 acres of this property, which would be restored after construction with grass or low vegetation consistent with clear zone requirements for the light rail guideway and in consultation with the City of Redmond.

We believe this park is not a park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance under the Act, and Section 4(f) does not apply. Mitigation requirements for conversion of the property under Forward Thrust, including providing comparable replacement park property, do apply consistent with the City of Redmond's agreement with King County. Sound Transit will work with the City of Redmond to identify appropriate replacement property, and Sound Transit will transfer the property for use as replacement park property. In addition, temporarily disturbed areas will be revegetated after construction in coordination with the City of Redmond and consistent with guideway clear zone requirements. We request the City's concurrence on this determination.

Bridle Crest Trail

The FEIS identified temporary construction impacts to this trail due to potential closure or detour. The light rail alignment for the adopted project and the proposed design refinements would cross under the trail at NE 60th Street, where the trail crosses SR 520. There would be no permanent project facilities on the trail property. Proposed mitigation in the FEIS and for the proposed design refinements includes temporary detours and protective barriers during construction where appropriate. We request the City of Redmond's concurrence that the project's impacts would result in a temporary occupancy consistent with 23 CFR 774.13(d) as outlined above.

Bear Creek Park

The project would not require permanent acquisition of property from Bear Creek Park. However, construction activities along NE 76th Street may encroach approximately 15 to 20 feet into the southern boundary of the park requiring a temporary easement of approximately 0.1 acre. The affected portion of the parcel is in the shoulder area of NE 76th Street and consists of mown grass managed similar to highway right-of-way. This area of the park is outside of the fence, does not contain sensitive areas or trees, and is not in active use. Therefore, no users would be affected. Areas temporarily disturbed will be restored after construction consistent with the existing conditions. We request the City of Redmond's concurrence that the project's impacts would result in a temporary occupancy consistent with § 774.13(d) as outlined above.

Concurrence Request

We ask that you provide your signature on this letter to confirm the City agrees:

- the park property at 154th Avenue NE is not a significant park for purposes of Section 4(f), and
- the project meets temporary occupancy conditions for the Bridle Crest Trail and Bear Creek Park.

We request your response within 30 days as we strive to complete our environmental update and move this important project forward. As the project is further refined during final design, Sound Transit will coordinate with the City of Redmond's Parks and Recreation Department to review and finalize the City of Redmond design and construction activities. Please contact me at (206) 398-5301 or Lauren.Swift@soundtransit.org if you have any questions or comments.

Sincerely,

Lauren Swift
Senior Environmental Planner

Attachments: City of Redmond Letter, March 9, 2011
Property impact map

City of Redmond Signature for Concurrence

JW
TU

√scanned
√Env log 220

CityofRedmond
WASHINGTON

March 9, 2011

U.S. Department of Transportation
R.F. Krochalis
Federal Transit Administration
915 Second Avenue
Federal Building, Suite 3142
Seattle, WA. 98174-1022

Re: East Link Light Rail Section 4(f) De Minimis Determination
Significance of Park Facility and Final Agreement

Dear Mr. Krochalis:

Please find enclosed the original of the Concurrence of Significance of the City of Redmond Park Facility and Final Agreement signed by Craig Larsen.

Please let me know if I may be of further assistance to you.

Sincerely,

Sharon Sato

Sharon Sato
Administrative Office Coordinator
Parks Administration and Planning
City of Redmond Parks and Recreation
425-556-2311

Enclosed: East Link Light Rail Section 4(f) De Minimis Determination signed original

U.S. Department
of Transportation
**Federal Transit
Administration**

REGION X
Alaska, Idaho, Oregon,
Washington

915 Second Avenue
Federal Bldg. Suite 3142
Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

March 3, 2011

Craig Larsen, Director
City of Redmond Parks and Recreation
P.O. Box 97010
Redmond, WA 98073

Re: East Link Light Rail Section 4(f) De Minimis Determination

Dear Mr. Larsen:

As part of the East Link Light Rail Project Final Environmental Impact Statement (EIS) documentation process, the Federal Transit Administration (FTA), as the lead federal agency, is finalizing the Section 4(f) evaluation of the potential impacts of the project on public parks and recreational facilities.

The Section 4(f) evaluation is a requirement of the U.S. Department of Transportation Act of 1966. Under the Act, FTA cannot approve a transportation project (such as East Link) that requires the use of any publicly owned land from a significant public park, recreation area, or wildlife and waterfowl refuge, or any land from a significant historic site, unless a determination is made that:

- There is no feasible and prudent alternative to using the property; and
- The project includes all possible planning to minimize harm to the property resulting from the use; or
- The use will have no more than a *de minimus* impact on the resource. A *de minimus* impact means a project will have no adverse effect to the activities, features, and attributes of the resource after consideration of any impact avoidance, minimization, and mitigation or enhancement measures.

If the federal lead agency determines that a transportation use of Section 4(f) property, results in a *de minimus* impact on that property, an evaluation of prudent and feasible avoidance alternatives is not required and the Section 4(f) process is complete.

Federal guidance encourages early coordination with officials with jurisdiction over the Section 4(f) resource to ascertain the position of the officials to obtain their views. The City signed a letter in September 2008 indicating its preliminary views on a proposed *de*

minimis determination for certain city park facilities potentially affected by the project and is included the East Link 2008 Draft EIS. Federal regulations stipulate that "officials with jurisdiction" over the Section 4(f) resource must concur in writing with a *de minimus* finding (23 CFR 774.5 (2)). The regulations also require that an opportunity for public review and comment concerning the effects of the project on the Section 4(f) resource be provided prior to such written concurrence. As per 23 CFR 774.5, the public comment requirement has been met with the distribution of the East Link Draft EIS (2008) and Supplemental Draft EIS (2010) for review and comment by the public, agencies, and groups.

With the comment period on these documents completed, and based on the city's 2008 letter, FTA intends to make a *de minimis* finding on the listed resources that are owned by the City of Redmond and we are requesting the city's final concurrence on this finding. Your letter of concurrence will be included in the Final EIS for East Link. Following the City's written concurrence, FTA will make a final Section 4(f) determination, which will also be included in the Final EIS.

The table below lists Luke McRedmond Park, Bear Creek Trail, and the Redmond Central Connector as City of Redmond park facilities that the East Link Light Rail Project would affect. Alternative E1 would only affect Luke McRedmond Park and all Segment E alternatives would affect the Bear Creek Trail and the Redmond Central Connector. Given the potential project affects and the proposed potential mitigation, FTA believes that a *de minimis impact* finding can be made for Luke McRedmond, Bear Creek Trail and the Redmond Central Connector. A *de minimis* determination means that after incorporation of mitigation measures, the East Link project will not adversely affect the activities, features, and attributes of the significant park facilities.

City of Redmond Park Facility and Summary of Section 4(f) Use

Name of Resource	Significance Determination	Impact on Resource	Potential Mitigation	4(f) Findings after Mitigation
Luke McRedmond (E1)	Significant	Permanent use of up to 0.1 acre under elevated structure.	One or more of the following measures would be implemented: Financial compensation for permanent aerial easement, or improvements to the park as agreed to with the City. Replacement of trees removed per City tree ordinance.	*de minimus*
		Temporary use of land during construction	*Financial compensation for the lease of land during construction, as agreed to with the City.* *Maintain access to the park*	

City of Redmond Park Facility and Summary of Section 4(f) Use

Name of Resource	Significance Determination	Impact on Resource	Potential Mitigation	4(f) Findings after Mitigation
			during construction. *Restore temporarily disturbed area to existing conditions.*	
Bear Creek Trail (***Preferred Alternative E2*** and alternatives E1, E4)	Significant	Permanent tunneling of trail for up to 30 feet (E2). Permanent shading from elevated structures (E1, E4)	The following measures would be implemented for the impacts described: Rerouting of trail, restoration of vegetation, and replacement of trees (E2); Financial compensation for permanent aerial easement, or improvements to the trail as agreed with the City (E1, E4).	*de minimus*
		Temporary loss of use of trail during construction	*Financial compensation for the lease of land during construction, as agreed with the City.* *Maintain access or provide detours for trail during construction.* *Restore temporarily disturbed area to existing conditions.*	
Redmond Central Connector (Trail/Park Corridor) (***Preferred Alternative E2***, and alternatives E1, E4)	Significant	Possible reduction of planned trail width, removal of planned park amenities and associated vegetation (E2, E1, E4)	The following measures would be implemented for the impacts described: Possible rerouting of trail, replacement of affected park amenities, and associated vegetation as agreed to with the City.	*de minimus*
		Temporary loss of use of planned trail and park facilities during construction	*Financial compensation for the lease of land during construction as agreed to with the City.* *Maintain access or provide detours for trail during construction.* *Restore temporarily disturbed area to existing conditions.*	

In addition, the impact to the Redmond Central Connector is assumed *de minimus,* because Sound Transit will be contributing toward the purchase of the Woodinville Subdivision (former BNSF Rail Corridor) to obtain real property and easements for the right to operate a light rail on the remainder of the corridor from the Port of Seattle and

the City of Redmond to operate light rail. This contribution toward the purchase of the corridor, and subsequent easements, will guarantee Sound Transit access to the downtown Redmond segment of the former BNSF corridor without having to replace the land at the time of project implementation as part of 4(f) requirements.

We ask that you provide your signature on this letter, or in its place your own letter, to confirm your concurrence on the significance of the City of Redmond park facility and final agreement with the Section 4(f) *de minimus* determination, and the potential mitigation. We are requesting a response within 30-days of the date of this letter.

As the project is further refined during final design, Sound Transit will coordinate with the City of Redmond's Parks and Recreation Department to review and finalize the City of Redmond design and construction activities. To follow up on this letter, Elma Borbe, Sound Transit Environmental Planner will contact you to provide any information you may need and also to offer a meeting to review this letter. If you have any questions, please call either John Witmer, Community Planner at (206) 220-7964 or Elma Borbe, Environmental Planner at (206) 398-5445.

Sincerely,

R. F. Krochalis
Federal Transit Administration

City of Redmond Signature for Concurrence

Cc: John Witmer, FTA
James Irish, Sound Transit
Elma Borbe, Sound Transit

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-SURVEY-S
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-XAP100
xRLE-L90-CDP100
xRLE-MergedUtilities
xRLE-L90-CRP100
xRLE-ROW-Survey
xRLE-MergedSF
xRLE-L90-RHP100
554-3164-060-SOUTH-BA

SR 520 EB ON-RAMP

EB 5044+00

CL EB TRACK

WSDOT ROW

PERMANENT IMPACT

TEMPORARY CONSTRUCTION EASEMENT

UNDERGROUND EASEMENT

R/W NO. RL122

2182500050

CITY OF REDMOND

154TH AVE NE

NE 1/4 NW 1/4 SEC 14, T 25 N, R 5 E; W.M.

N

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.*	TEMPORARY CONSTRUCTION ESMT SQ. FT.	PERMANENT IMPACT SQ. FT.	UNDERGROUND ESMT SQ. FT.
7	RL122	2812500050	CITY OF REDMOND	55,534	11,071	4,588	6,370

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

RFP SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NAGLE
DRAWN BY: Y. CHANG
CHECKED BY: M. STUMPF
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

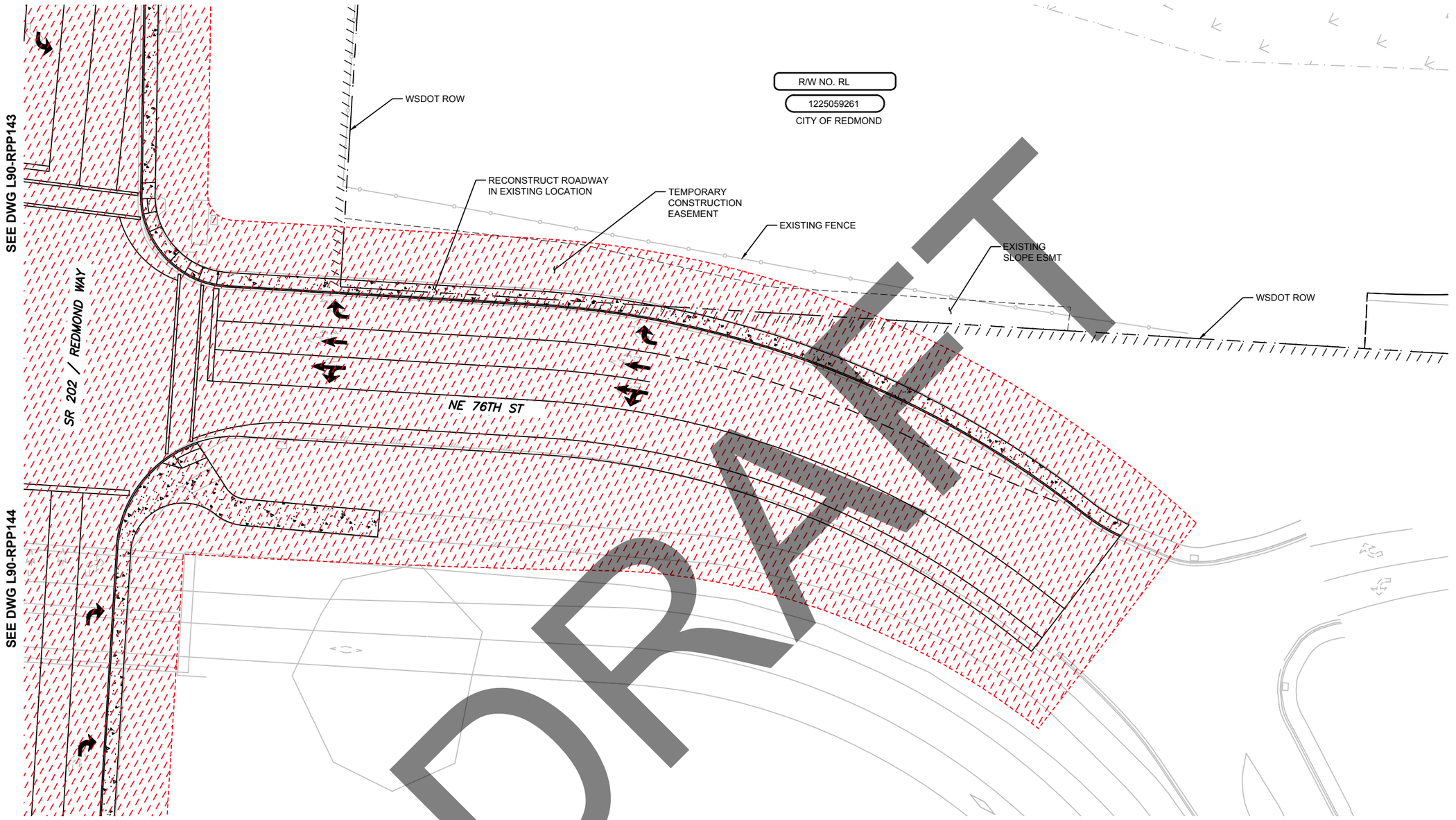
SCALE: 1" = 40'
FILENAME: RLE-L90-RPP105_THERESA
CONTRACT No.:
DATE: 03/20/18

DOWNTOWN REDMOND LINK EXTENSION
RTC TO DOWNTOWN REDMOND
PRESCRIPTIVE
RIGHT-OF-WAY PLAN
EB STA 5035+00 TO EB STA 5044+50

DRAWING No.: L90-RPP105
LOCATION ID:
SHEET No.: #### REV:

03/20/18 | 10:32 AM | DMOCKD
U:\LLR\REDMOND_LINK\EXTPE\WORKING\JACKIE\RLE-L90-RPP105_THERESA.DWG

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



% = TEMPORARY CONSTRUCTION EASEMENT x = TEMPORARY ACCESS EASEMENT @ = TEMPORARY CONSTRUCTION AND ACCESS EASEMENT

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	PERMANENT IMPACT SQ. FT.	UNDERGROUND ESMT SQ. FT
1		1225059261	CITY OF REDMOND	249,014	3,750	0	0

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

RFP SUBMITTAL

INTERMEDIATE

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: NAGLE/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP142
CONTRACT No.:
DATE: 04/02/18

DOWNTOWN REDMOND LINK EXTENSION
RTC TO DOWNTOWN REDMOND
PRESCRIPTIVE
RIGHT-OF-WAY PLAN
NE 76TH STREET

DRAWING No.: L90-RPP142
LOCATION ID:
SHEET No.: #### REV:

SOUNDTRANSIT

September 17, 2018

Martin Pastucha
Public Works Director
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 03 DRLE: Roadway and Trail Closures

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on the long-term construction closures for streets and trails along the project length. Concurrence on the long-term construction closures is needed to provide Sound Transit with working and staging area to construct its light rail project in the Downtown Redmond area. This concurrence letter provides limitations on long-term construction closures. Intermittent shorter street and trail closures will be considered by the City during construction.

Acceptable long-term construction closures are shown in the following table, subject to Redmond City Council approval per RMC 10.24.047.

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Street or Trail	Affected Portion	Days and Hours	Maximum Duration	Other Limitations
NE 76th St between 164th and 170th Aves NE	Westbound travel lane and center turn lane	All	24 months	Must maintain two-way traffic. May repurpose parking lane as travel lane to accomplish this.
166th Ave NE between Cleveland St and NE 76th St	All	Monday 5 am to Friday 3 PM	24 months	Closures prohibited end of November early January (see Project Requirements for standard holiday moratorium .
Bear Creek Trail between Bear Creek Pkwy and Redmond Way	All	All	3 months	
Redmond Central Connector between 164th Ave NE and the Bear Creek Trail	All	All	32 months	
NE 40th Street	SR 520 eastbound ramps to 156th Ave NE	All	July and August 2021	Maintain non-motorized access through construction zone at all times.
NE 51st Street	SR 520 eastbound ramps to 156th Ave NE	NA	NA	Long term closure not allowed. Construction shall not overlap closures at 40th and 60th.
NE 60th Street	154th Ave NE to 156th Ave NE	All	July and August (year TBD by contractor excluding 2021)	Maintain non-motorized access through construction zone at all times.

Vehicular and non-motorized detour routes will be provided for all long-term street and trail closures. Motorized vehicles are expected to re-route along local streets while long-term closures are in place. The Bear Creek Trail detour will allow pedestrians and non-motorized vehicles to follow along the sidewalk on the east side of 170th Ave NE as well as the sidewalk on the south side of SR 202/Redmond Way. The Redmond Central Connector Trail detour will allow pedestrians and non-motorized vehicles to follow along the sidewalk on the south side of NE 76th St., use the travel lanes of NE 76th St., or to divert from the Downtown section of the Redmond Central Connector onto the Bear Creek Trail. Other detour routes may be approved by the City.

References

Figure 1 – COR Study session street closure slides

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Sincerely,

A. DeWitt Jensen

DeWitt Jensen
Corridor Design Manager, DRLE

Concurrence:

_____, Oct 2, 2018
Date

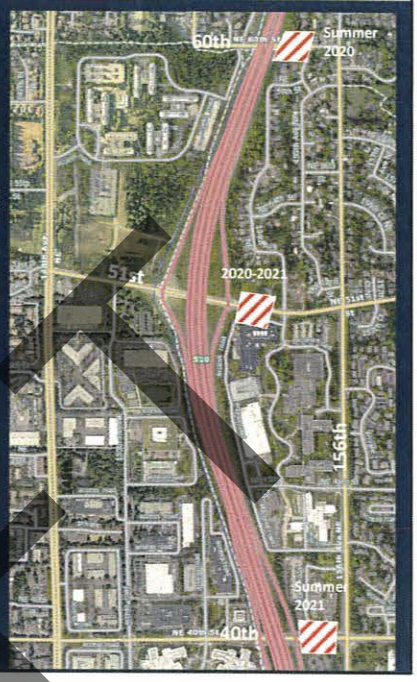
Martin Pastucha, Public Works Director
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Street Closures

Overlake



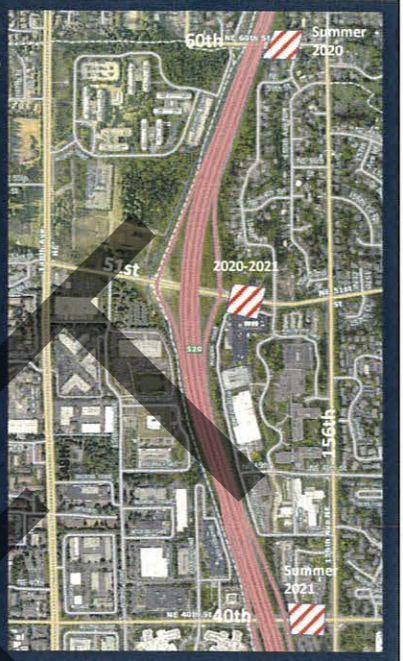
Downtown

Rationale

- Safety
- Mobility for people, goods
- Resident, business impacts
- Schedule

Recommendation: Overlake

- Close NE 60th St. – summer 2020
- Phase construction at NE 51st St. – after 60th is complete
- Close NE 40th St. – July/August 2021



Recommendation: Downtown

- Modify NE 76th St., maintaining two travel lanes
- Close 166th Ave NE to set girders, construct station
  - Weekdays only
  - Expected duration: 14-24 months
  - Street open during holiday season

SOUNDTRANSIT

April 9th , 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 04 DRLE Utilities at SE Redmond & NE 60th St

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on utility work that the project will include in NE 70th St. in Marymoor Village, and and near NE 60th St. in Overlake.

Water and Sewer Main Replacements in NE 70th St.

The project will relocate/replace both the 12" water main and 8" sewer main in NE 70th Street. The mains will both be replaced in kind at the same size as their existing conditions. The beginning of the water main relocation limit is at the existing intersection of NE 70th St. and 176th Ave NE, then continuing west/southwest along the new re-aligned NE 70th St. past the future SE Redmond Station. New fire hydrant assemblies will be installed to replace the existing fire hydrants which will be impacted by the re-alignment of NE 70th Street. Sound Transit will be installing a 12-inch water line that extends from NE 70th St to just west of the baseball fields along the guideway wall of Marymoor Park for King County as part of a betterment agreement.
A new 8-inch sewer main will be installed in the re-aligned NE 70th Street beginning at the existing intersection of 176th Avenue NE then running west located in the center of the east bound travel lane. This relocated sewer main will roughly end in front of the existing Marymoor Car and Boat Storage building (RL 161); the City of Redmond will identify the final location and invert elevation of the westernmost sewer manhole in NE 70th St. The new sewer main will connect to the existing sewer manhole in the NE 70th St. and 176th Ave. NE intersection which will maintain its existing invert elevations.

Wastewater Pump Station 13 Replacement

The City of Redmond will be replacing pump station 13 and the force main to the discharge point at the King County sewer line in the ELST corridor. The interface with DRLE will be the replacement of the sewer forcemain starting from intersection of NE 70th and 176th down NE 70th connecting into the existing King County sewer line (approximately 325ft). The work in NE70th St is expected to be completed in July 2020.

New 173rd Ave NE Utilties

Sound Transit will install a new water main that will wrap onto the new 173rd Ave NE located at the west end of NE 70th St and continue south in the new road until it connects to the existing 12-inch water main in NE 67th Ct. A new 8-inch sewer main will be installed underneath the new 173rd Ave NE centered in the northbound travel lane and capped near the NE 67th Ct intersection for a future connection to the existing sewer system. The City of Redmond will identify the final location and invert elevation of the northernmost sewer manhole in the new roadway but an anticipated location is the beginning of the curve onto re-aligned NE 70th Street. New sewer manholes will be installed as required to meet City of Redmond standards. Sound Transit may apply for a Utility Reimbursement Agreement(s) under RMC 13.12 to recover costs associated with these utilities.

Reconnected Water and Sewer Service Lines in Marymoor Village

The project will re-connect existing side sewers and water mains/services that are currently serving properties with buildings that will remain after project is complete.

Franchise Utility Work in Marymoor Village

In addition to the City of Redmond utility work on NE 70th St., there will also be Private Franchise utility relocations done to accomodate project impacts. The existing 2" intermediate pressure gas main will be replaced in the area by PSE through coordination with the design-build contractor. Last, the existing overhead power and telecom systems will also be relocated onto new poles installed in the landscape area on the south side of the new NE 70th St. roadway. The limits for gas will be in the realigned NE 70th St and overhead relocations will extend from 176th Ave NE to the west end of NE 70th . All services will also be re-established to existing buildings as needed when work is complete.

Utility Work in Overlake near NE 60th St.

In the NE 60th St. area, the project will relocate the existing 8" water main that runs along the existing WSDOT ROW between NE 59th Way and NE 60th St. The existing main begins near the corner of NE 59th Way and 154th Ave. NE, then continues north along the back side of 2 properties for 210 feet before turning west to cross SR 520. The main will be relocated approximately 35 feet east of its existing location and will be placed in a new easement to be acquired by Sound Transit. The main will turn northwest and cross underneath the project alignment at a diagonal orientation instead of perpendicular to minimize impacts to the property at this location before it connects back to the existing 8" water main just east from the edge of SR 520. The replacement main will 8" and will also be placed inside a casing sized by the design-builder that meets City of Redmond standards, where it is located underneath the project tracks. The casing will extend a minimum of 10 feet

outside the tracks walls, and Sound Transit right-of-way. The water main relocation will have a 10' clear access zone around all bends/connections points for maintenance purposes and an existing fire hydrant in the area will also be replaced as part of this work. Sound Transit will secure a 20-foot-wide easement from private property and will assist the City with any modifications needed for the WSDOT franchise agreement.

Finally, Sound Transit has agreed to install a 20" steel casing underneath the new structure being built for the Link extension at the NE 60th St. crossing. This new casing shall align with the bridge girders so that future extension of the line is feasible. The installation of this new casing will make the DRLE project structure compatible with future City of Redmond water system upgrade plans to install a new 12" water main across SR 520 at NE 60th Street.

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Raben
Executive Project Director, DRLE

Concurrence:

Kristi Wilson 4/19/19
Date

Kristi Wilson, Interim Director of Public Works
City of Redmond

Enclosure (s):
cc: Becca Aue (Project Manager, ST)
ST Document Control

SOUNDTRANSIT

May 16, 2018

Martin Pastucha
Public Works Director
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 05 DRLE: Replaced Infiltration Ponds within Redmond Wellhead Protection Area

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on the required replacement stormwater infiltration pond design standards within the Redmond Wellhead Protection Zones 2 and 3 in order to replace existing Washington State Department of Transportation (WSDOT) stormwater facilities in the vicinity of the SR 520 and SR 202 interchange. The new pond(s) to be built as part of the project will be owned and maintained by WSDOT.

The WSDOT Highway Runoff Manual (HRM) Section 2-4.1.3 refers designers to local ordinances for details on wellhead protection areas. Wellhead Protection Zone Performance Standards for the City of Redmond are established in the Redmond Zoning Code (RMC Title 21) section 21.64.050.

The redesign of the eastbound SR 520 off-ramps to SR 202 requires the removal and replacement of a stormwater infiltration pond. The pond currently infiltrates stormwater runoff from SR 202 and a portion of the SR 520 eastbound off-ramp. The proposed location of the replacement ponds are within Zone 2 and 3 of the Redmond Wellhead Protection Area. The proposed ponds will infiltrate stormwater runoff from the same section of SR 202 and will infiltrate stormwater runoff from the replaced SR 520 off-ramp. See attached memo for additional explanation and details of the project area and the proposed project.

To provide adequate protection to the City of Redmond potable water wells, the stormwater infiltrated in the replaced infiltration ponds must receive sufficient water quality treatment prior to infiltration. The design standard

would normally not allow infiltration at this location, but since this is modification to an existing pond, and there are no non-infiltration alternative available at this site, the City will accept a design that requires all stormwater entering the proposed ponds to receive basic, enhanced and oil control treatment as defined within the City of Redmond Stormwater Technical Notebook. In addition to stormwater treatment facilities, a WSDOT owned and stocked spill control kit suitable for deployment into the infiltration ponds in the event of a large spill on SR520 or SR202 will also be provided in the vicinity of the ponds.

The proposed method of treatment is the application of an engineered filter media liner on the ponds' surfaces. Prior to approval and construction of the stormwater management system in this location, a stormwater management plan, including any necessary modeling and analysis, and meeting requirements of both the City of Redmond and WSDOT must be submitted for approval. Approval must be granted by the City of Redmond, WSDOT, and Sound Transit.

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen
Corridor Design Manager, DRLE

Concurrence:

_____ / May 30, 2018
Date

Martin Pastucha, Public Works Director
City of Redmond

Attachments:
WSDOT SR 202 Infiltration Pond Relocation

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

719 2ND AVENUE, SUITE 200 | SEATTLE, WA 98104 | P 206.394.3700

DOWNTOWN REDMOND LINK EXTENSION
MEMORANDUM

DATE: March 22, 2018

TO: Steve Hitch, City of Redmond
Le Nguyen, WSDOT

FROM: Janelle Hitch, PE

RE: WSDOT SR 202 Infiltration Pond Relocation

PROJECT NUMBER: 554-3164-060

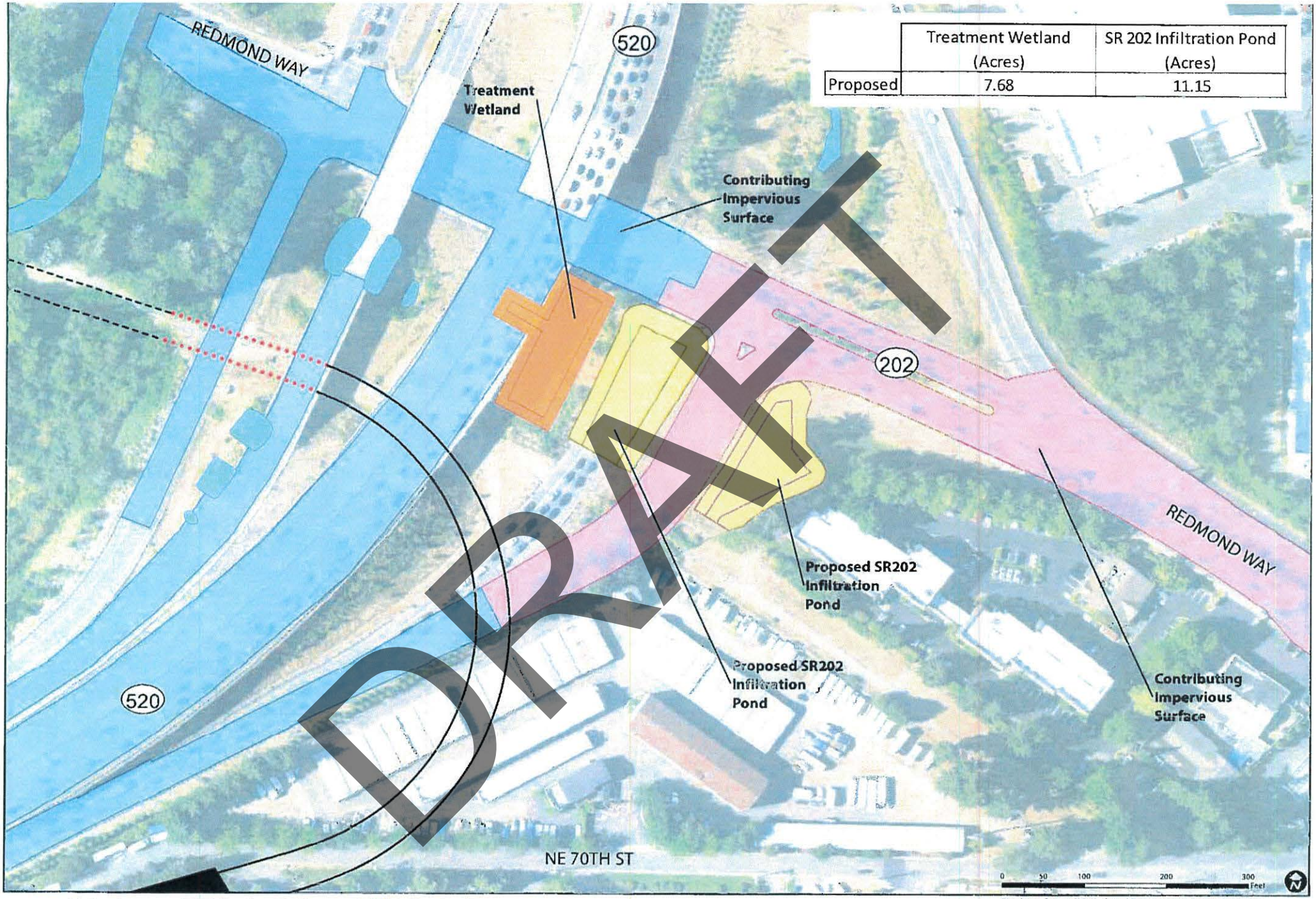
PROJECT NAME: Downtown Redmond Link Extension

This memo has been prepared to address the WSDOT SR202 Infiltration Pond Relocation. The existing infiltration pond will be replaced with the relocated SR 520 eastbound off-ramp. The ramp is being relocated to accommodate the Sound Transit Downtown Redmond Link Extension (DRLE).

The DRLE project proposal includes replacement of the infiltration pond with infiltration ponds on each side of the new ramp. The combined area of the ponds equal the existing pond area plus added surface area sufficient for infiltration of stormwater runoff from new and replaced roadway surfaces of the replaced SR520 ramp. The proposed ponds lie within a Wellhead Protection Area. To aid the description Figures 1 and 2 are attached showing the proposed pond location and contributing impervious surface and existing pond location and contributing impervious surface, respectively.

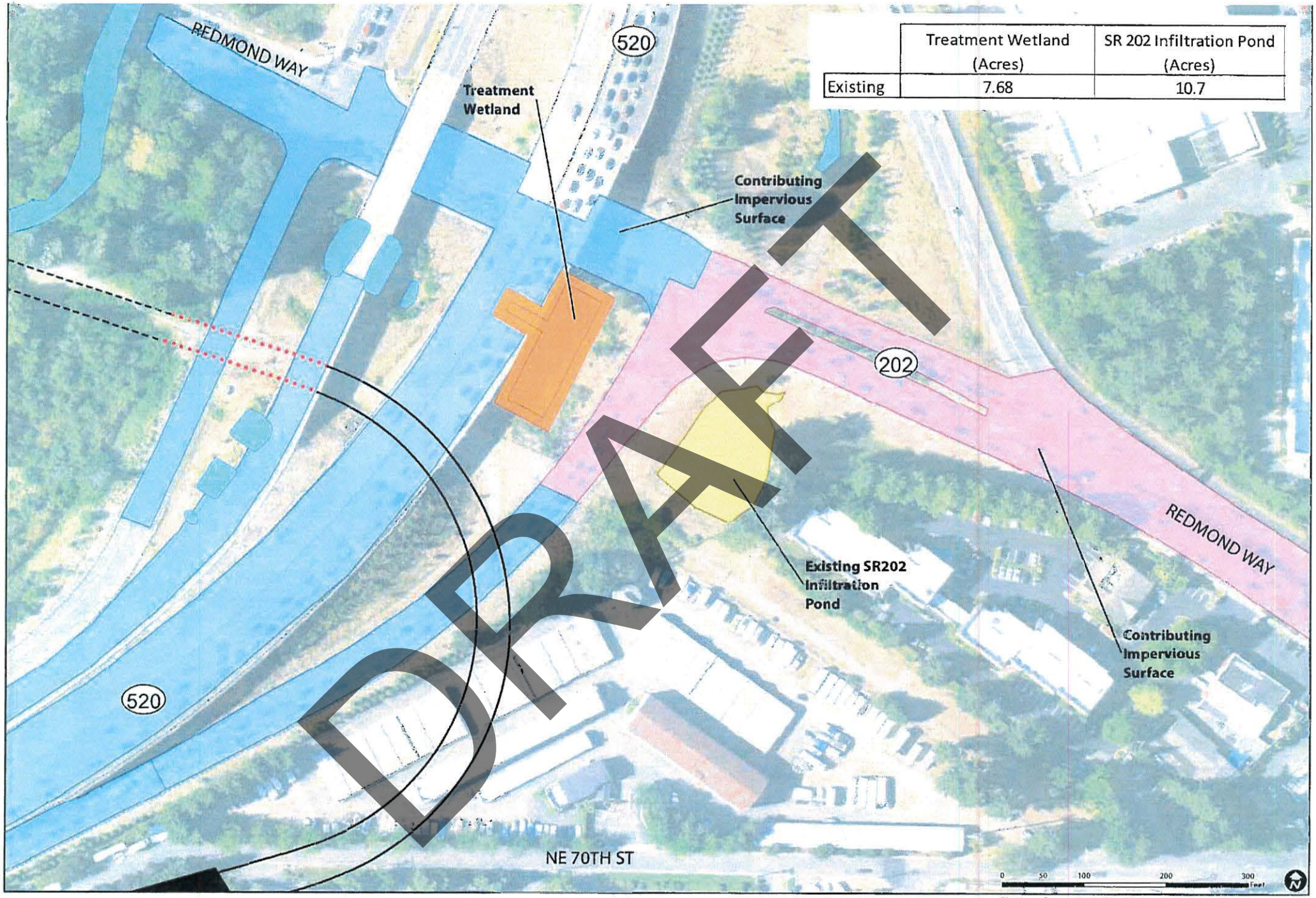
Due to the location and the quality of the stormwater from the roadway, sufficient water quality treatment is required prior to allowing infiltration of the stormwater within the ponds. All stormwater entering the proposed ponds must receive basic, enhanced and oil control treatment prior to infiltration. The proposed method of treatment for the ponds is the use of an engineered filter media liner such as the Filterra Bioscape. Prior to approval of the stormwater management system in this location, a stormwater management plan including any necessary modeling and analysis and meeting requirements of both Washington State Department of Transportation and the City of Redmond must be submitted for approval. Approval must be granted by WSDOT, City of Redmond, and Sound Transit.

Approval of the design will be based on the performance criteria required to meet basic, enhanced and oil control treatment specified in the most current WSDOT and City of Redmond stormwater management manuals.



	Treatment Wetland (Acres)	SR 202 Infiltration Pond (Acres)
Proposed	7.68	11.15

Figure 1
SR 202 / SR 520 Proposed Treatment
Downtown Redmond Link Extension



	Treatment Wetland (Acres)	SR 202 Infiltration Pond (Acres)
Existing	7.68	10.7

Figure 2
SR 202 / SR 520 Existing Treatment
Downtown Redmond Link Extension

SOUNDTRANSIT

November 14th, 2018

Jason Lynch, Building Official
Department of Planning & Community Development

Todd Short, Fire Marshall
City of Redmond
PO Box 97010-9710
Redmond, Washington 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 07: Southeast Redmond Station and Downtown Redmond Station Exiting

Dear Mr. Lynch and Mr. Short:

Based upon our recent discussions regarding the use of NFPA 130 "Standard for Fixed Guideway Transit and Passenger Rail Systems" for platform occupancy and exiting at the Southeast Redmond and Downtown Redmond Stations, Sound Transit respectfully requests review and concurrence with the following exiting strategy.

All requirements outlined in NFPA 130 will apply and not be limited to Section 5.3.2 Occupant Load and 5.3.3 Capacity and Location of Means of Egress.

Any adjacent buildings, such as the proposed parking structure at Southeast Redmond and Downtown Station supporting structures will not be considered as part of the station platform and will comply with the current edition of adopted building codes at the time of permit application.

Your review and concurrence with this exiting strategy is appreciated. Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Sincerely,

DeWitt Jensen
Corridor Design Manager, Downtown Redmond Link Extension

Concurrence:

Jason Lynch, Building Official	11/19/18 Date	Todd Short, Fire Marshall	11/16/18 Date

Attachments:
1. Prelimnary Exiting Analysis
2. NFPA 130 Exiting Diagram and calculations for SE Redmond Station
3. NFPA 130 Exiting Diagram and calculations for Downtown Station platform level

cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
Liz Beigle-Bryant (SQA, ST)
ST Document Control

Attachment 1- DRLE- Preliminary Exiting Analysis

Southeast Redmond Station

Southeast Redmond Station, a center, at-grade platform light rail transit station, is composed of one canopy providing weather protection to waiting patrons at the platform.

The following exiting strategy is proposed for concurrence:

- The station platform contains the only occupant load of the station.
- Two means of egress off the platform (east and west) are provided.
- Egress to the west from station platform will be along the platform waiting area to a point of safety between the tracks as defined by NFPA 130 Section 3.3.40..
- Egress to the east from station platform will be along the platform waiting area and across the track to a point of safety on the public plaza as defined by NFPA 130 Section 3.3.40.

  An exiting diagram is included as Attachment 2.

NFPA 130 Exiting Analysis

1. The design of the station complies with NPFA 130 timed egress analysis in evacuating all patrons from the station platform in 4 minutes or less and evacuating all patrons to an area of safety in 6 minutes or less. The NFPA 130 egress analysis for SE Redmond station is included as Attachment
2. Should a fully load train enter the station with 800 persons, the east and west egress paths having a combined capacity of 250 persons per minute and can easily accommodate the train and any entraining passengers within the 4 and 6-minute performance period.

Other Fire / Life Safety Features

A number of fire/life safety features provide enhanced protection of employees and station patrons.

1. Platform canopies are open structures and constructed such that they are directly open to the atmosphere. Smoke and heat will disperse directly into the atmosphere. The station meets the definition of “Open Station” in NFPA 130, Section 3.3.55.2.
2. The platform canopies will be of Type II-B non-combustible construction in accordance with NFPA 130 Section 5.2.2 Construction Type.
3. The station is at-grade where passengers may egress during a fire incident to the sides as well as using the station exits.
4. Platform furniture and accessories including benches, windscreens, kiosks etc. are entirely non-combustible. Trash and recycling receptacles will be located outside of the platforms.

Downtown Redmond Station

Downtown Redmond Station, a center, elevated platform light rail transit station, is composed of an elevated platform and vertical transportation components.

The following exiting strategy is proposed for concurrence:

- Three means of egress (east, center and west) are provided off the platform.

- Egress from station platform will be along the platform waiting area and down public stairs and emergency egress stairs to a point of safety on the public plaza as defined by NFPA 130 Section 3.3.40.
- The east and central entrances and east egress stair exit to a point of safety on the public plaza as defined by NFPA 130 Section 3.3.40.

An exiting diagram is included as Attachment 3.

NFPA 130 Exiting Analysis

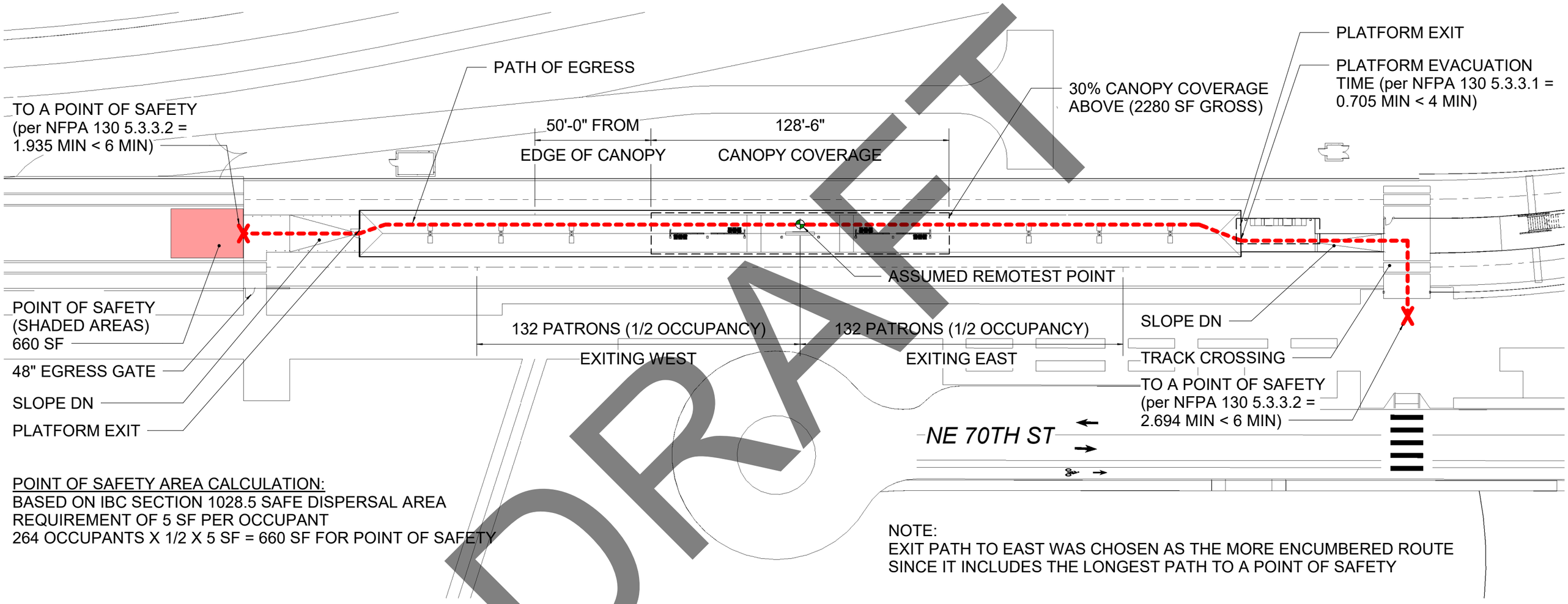
1. The design of the station complies with NPFA 130 timed egress analysis in evacuating all patrons from the station platform in 4 minutes or less and evacuating all patrons to an area of safety in 6 minutes or less. The NFPA 130 egress analysis for Downtown Redmond station is included as Attachment 3.
2. Should a fully loaded train enter the station with 800 persons, the east, central and west egress paths having a combined capacity of 596 persons per minute, can easily accommodate the train and any entraining passengers within the 4 and 6-minute performance period.
3. This station will be fully sprinklered and will have a fire alarm system.

Other Fire / Life Safety Features

A number of fire/life safety features provide enhanced protection of employees and station patrons.

1. Platform canopies are open structures and constructed such that they are directly open to the atmosphere. Smoke and heat will disperse directly into the atmosphere. The station meets the definition of “Open Station” in NFPA 130, Section 3.3.55.2.
2. The platform canopies will be of Type II-B non-combustible construction in accordance with NFPA 130 Section 5.2.2 Construction Type.
3. Platform furniture and accessories including benches, windscreens, kiosks etc. are entirely non-combustible. Trash and recycling receptacles to be located outside of the platforms.

5/14/2018 2:20:58 PM



POINT OF SAFETY AREA CALCULATION:
BASED ON IBC SECTION 1028.5 SAFE DISPERSAL AREA
REQUIREMENT OF 5 SF PER OCCUPANT
264 OCCUPANTS X 1/2 X 5 SF = 660 SF FOR POINT OF SAFETY

NOTE:
EXIT PATH TO EAST WAS CHOSEN AS THE MORE ENCUMBERED ROUTE
SINCE IT INCLUDES THE LONGEST PATH TO A POINT OF SAFETY

ATTACHMENT 2
SOUTHEAST REDMOND NFPA 130 EXITING DIAGRAM

ATTACHMENT 2

EMERGENCY EXITING CALCULATIONS

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130 | 2017 Edition

SE Redmond Station | Type: Center Platform | DATE: 5/14/2018

System: Downtown Redmond Link Extension | DESIGN YEAR: 2035

OCCUPANT LOAD CALCULATION

PEAK ONE-HOUR LINE LOADS			A.M.	P.M.
	WBOUND		1252	168
	EBOUND		168	1,252
LINE LOADS (Train Load):		TOTAL	1420	1420
	WBOUND		0	137
	EBOUND		137	0
BOARDING LOADS (Entraining Load):		TOTAL	137	137
	WBOUND		707	0
	EBOUND		0	707
ALIGHTING LOADS (Not Used for load calculations):		TOTAL	707	707

PEAK 15 MINUTE LOADS = [PEAK HR. LOAD X Surge Factor / 4]			A.M.	P.M.
PEAK LINE LOADS (Train Load) adjusted for surge factor of:	1.25			
	WBOUND		391	53
	EBOUND		53	391
		TOTAL	444	444
PEAK BOARDING LOADS (Entraining) adjusted, surge factor of:	1.50			
	WBOUND		0	52
	EBOUND		52	0
		TOTAL	52	52
ALIGHTING LOADS adjusted for surge factor of:	1.50			
ALIGHTING LOADS:	WBOUND		266	0
	EBOUND		0	266
(Alighting loads not included for occupant load calculations)		TOTAL	266	266

TEMPLATE A IF HEADWAY ≤ 6 MINUTES TEMPLATE B IF HEADWAY > 6 MINUTES				
PEAK HEADWAYS (in minutes):	WBOUND		4.00	4.00
	EBOUND		4.00	4.00

PLATFORMS WHERE TRAINS ARRIVE FROM **ONE DIRECTION**

CALCULATED TRAIN LOAD = [PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) x 2]

PLATFORMS WHERE TRAINS ARRIVE FROM **TWO DIRECTIONS**

CALCULATED TRAIN LOAD= (PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY)) x 2 — PEAK DIRECTION

\+ PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) — OFF-PEAK DIRECTION

			A.M.	P.M.
Preliminary Line (Train) Load Calculations:	WBOUND		209	14
	EBOUND		14	209
Adjusted for maximum train capacity of: 800	WBOUND		209	14
	EBOUND		14	209
CALCULATED TRAIN LOAD TOTALS		**TOTAL**	223	223

ENTRAINING LOAD (Peak) = (PEAK 15 MIN. LOAD/15 MINUTES) x 12 MINUTE DEFAULT

ENTRAINING LOAD (Non-Peak) = PEAK 15 MIN. LOAD/(15 MINUTES/HEADWAY)

			A.M.	P.M.
	WBOUND		0	42
	EBOUND		42	0
PEAK BOARDING (ENTRAINING) LOAD		**TOTAL**	42	42

TOTAL OCCUPANT LOAD = [CALCULATED TRAIN LOAD + PEAK ENTRAINING LOAD]		A.M.	P.M.
Use greater of AM or PM Totals for Calculated Train Load	**TOTAL**	264	264

TOTAL OCCUPANT LOAD FOR CALCULATIONS **264**

EMERGENCY EXITING CALCULATIONS

Continued

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130 2017 Edition

SE Redmond Station	Type: Center Platform	DATE:	5/14/2018
	System: Downtown Redmond Link Extension	DESIGN YEAR:	2035

EMERGENCY EXIT CAPACITY (Exit Platform in less than 4 minutes) **CAPACITY CALCULATIONS**

(EXIT LANES AND CAPACITY PROVIDED)

ELEMENT	NUMBER	X INCHES	x pim	=	CAPACITY
PLATFORMS, CORRIDORS AND RAMPS					
clear width of path on platform	2	72	2.08	=	300
Doors and Gates					
Gate to trackway	1	36	2.08	=	75
STAIRS AND ESCALATORS					
Public Stair	0	72	1.41	=	0
Exit Stairs	0	66	1.41	=	0
Escalator	0	40	1.41		0
				Platform Exit Capacity	**375**
				(Fractional values are rounded)	

NOTES:

1. In calculating escalator capacity, one escalator per level shall be considered as being out of service.

EMERGENCY EXIT CAPACITY **TEST 1**

(EVACUATE PLATFORM IN 4 MINUTES OR LESS)

Fp = (platform exits flow time) = Platform occupancy load / Platform exit capacity

264 / 375 = 0.705 Minutes

PASS

EMERGENCY EXITING CALCULATIONS

Continued

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130 | 2017 Edition

SE Redmond Station | Type: Center Platform | DATE: 5/14/2018

System: Downtown Redmond Link Extension | DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Station to Point of Safety in less than 6 minutes) East **TEST 2A**

(EVACUATE THE TOTAL OCCUPANT LOAD FROM THE MOST REMOTE POINT ON PLATFORM TO A POINT OF SAFETY IN 6 MINUTES OR LESS)

Walking Time for longest exit route: T= Tp + T1 + T2 + T3 …

Use 124 FPM for platform, corridors and ramp travel speeds

Use 48 FPM for stairs and escalator travel speeds, use vertical distance

Use 200 FPM for concourse and other areas with lesser pedestrian density

	Feet	FPM		Minutes
Tp (Walking time on platform)	190	124	=	1.532
T1 (End of platform to ramp)	26	124	=	0.210
T2 (ramp)	30	124	=	0.242
T3 (End of ramp to crossing)	10	124	=	0.081
T4 (at-grade track crossing)	26	124	=	0.210
T5 (Crossing to point of safety)	84	200	=	0.420
T (walking time for longest exit route to point of safety)				**2.694**

Waiting time at platform exits: Wp = Fp - Tp

Fp = Platform exits flow time

Tp = Walking time on platform

	Platform exits flow time		Walking time on platform		Maximum wait time
Wp =	**0.705**	**-**	**1.532**	**=**	**0.000** Minutes

Total Exit Time = T+W_p

to Point of Safety

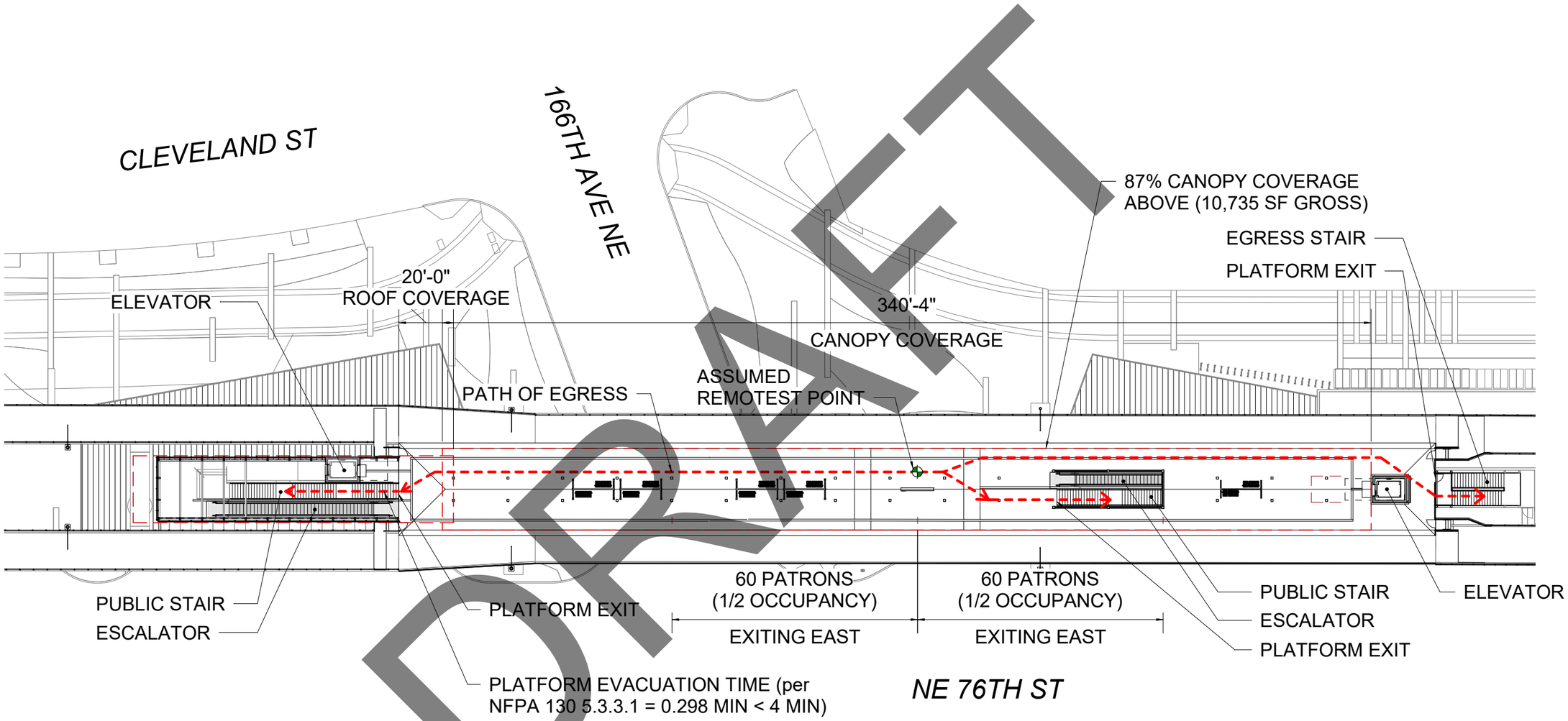
T = walking time for longest exit route

Wp = Waiting time at platform exits **=**

	Walking time for longest exit route		Waiting time at platform exits		Total exit time
Total Exit Time to Point of Safety	**=** **2.694**	**+**	**0.000**	**=**	**2.694** Minutes

EVACUATION TIME LESS THAN 6 MINUTES- **PASS**

10/2/2018 11:39:53 AM

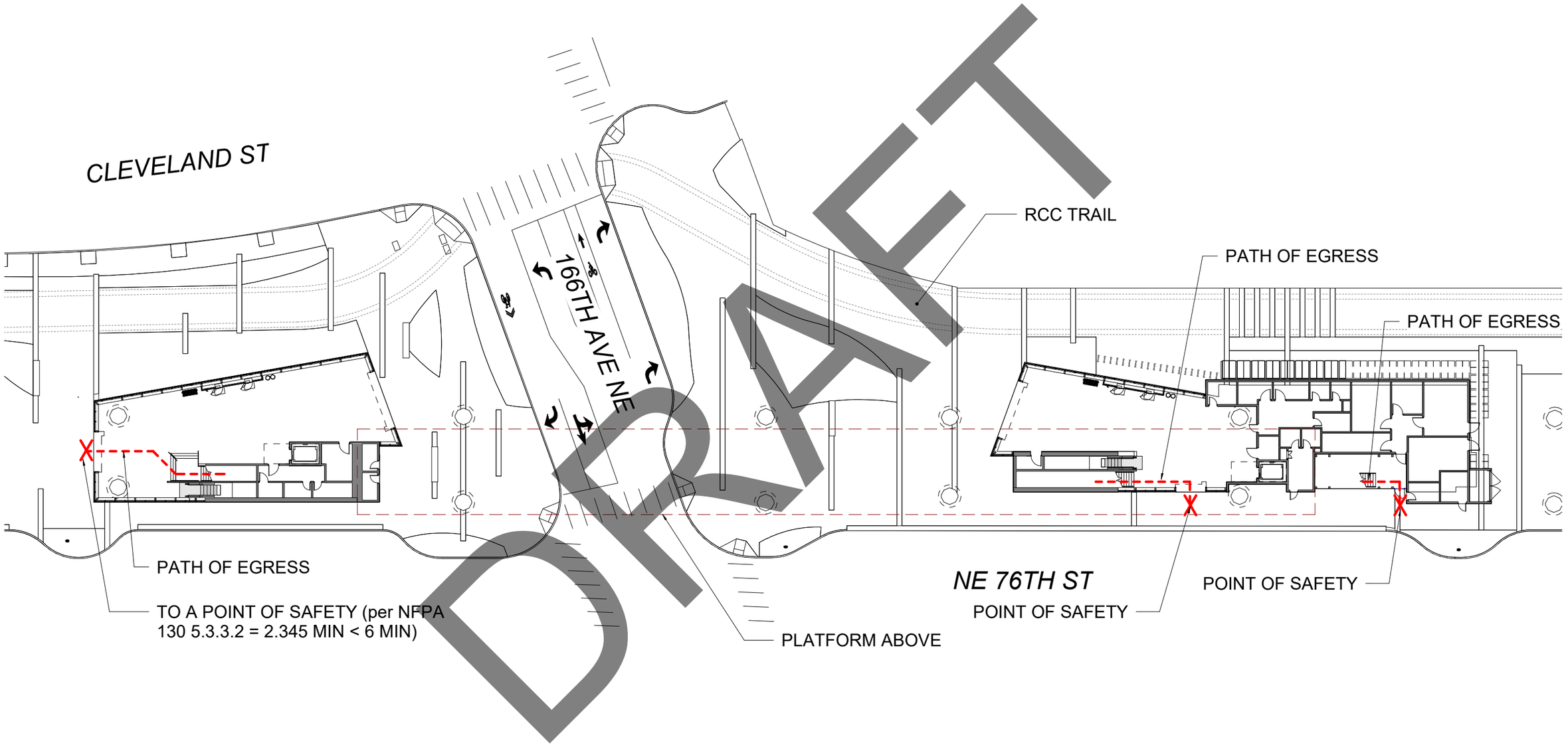


SOUNDTRANSIT HEWITT Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

DOWNTOWN REDMOND
CODE REVIEW - PLATFORM EXITING - PLATFORM LEVEL
1" = 20'-0"

DOWNTOWN REDMOND LINK EXTENSION
05/09/18

10/2/2018 11:41:24 AM



SOUNDTRANSIT HEWITT Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

DOWNTOWN REDMOND
CODE REVIEW - PLATFORM EXITING - SURFACE LEVEL
1" = 20'-0"

DOWNTOWN REDMOND LINK EXTENSION
05/09/18

EMERGENCY EXITING CALCULATIONS

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130 | 2017 Edition

Downtown Redmond Station	Type: Center Platform	DATE: 7/19/2018
	System: Downtown Redmond Link	DESIGN YEAR: 2035

OCCUPANT LOAD CALCULATION

PEAK ONE-HOUR LINE LOADS			A.M.	P.M.
	WBOUND		416	0
	EBOUND		0	416
LINE LOADS (Train Load):		TOTAL	416	416
	WBOUND		0	167
	EBOUND		167	0
BOARDING LOADS (Entraining Load):		TOTAL	167	167
	WBOUND		0	573
	EBOUND		573	0
ALIGHTING LOADS (Not Used for load calculations):		TOTAL	573	573

PEAK 15 MINUTE LOADS = [PEAK HR. LOAD X Surge Factor / 4]			A.M.	P.M.
PEAK LINE LOADS (Train Load) adjusted for surge factor of:	1.25			
	WBOUND		130	0
	EBOUND		0	130
		TOTAL	130	130
PEAK BOARDING LOADS (Entraining) adjusted, surge factor of:	1.50			
	WBOUND		0	63
	EBOUND		63	0
		TOTAL	63	63
ALIGHTING LOADS adjusted for surge factor of:	1.50			
ALIGHTING LOADS:	WBOUND		0	215
	EBOUND		215	0
(Alighting loads not included for occupant load calculations)		TOTAL	215	215

TEMPLATE A IF HEADWAY **≤** 6 MINUTES TEMPLATE B IF HEADWAY **>** 6 MINUTES			
PEAK HEADWAYS (in minutes):	WBOUND	4.00	4.00
	EBOUND	4.00	4.00

PLATFORMS WHERE TRAINS ARRIVE FROM **ONE DIRECTION**

CALCULATED TRAIN LOAD = [PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) x 2]

PLATFORMS WHERE TRAINS ARRIVE FROM **TWO DIRECTIONS**

CALCULATED TRAIN LOAD= (PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY)) x 2 — PEAK DIRECTION

\+ PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) — OFF-PEAK DIRECTION

			A.M.	P.M.
Preliminary Line (Train) Load Calculations:	WBOUND		69	0
	EBOUND		0	69
Adjusted for maximum train capacity of: 800	WBOUND		69	0
	EBOUND		0	69
CALCULATED TRAIN LOAD TOTALS		**TOTAL**	69	69

ENTRAINING LOAD (Peak) = (PEAK 15 MIN. LOAD/15 MINUTES) x 12 MINUTE DEFAULT

ENTRAINING LOAD (Non-Peak) = PEAK 15 MIN. LOAD/(15 MINUTES/HEADWAY)

			A.M.	P.M.
	WBOUND		0	50
	EBOUND		50	0
PEAK BOARDING (ENTRAINING) LOAD		**TOTAL**	50	50

TOTAL OCCUPANT LOAD = [CALCULATED TRAIN LOAD + PEAK ENTRAINING LOAD]		A.M.	P.M.
Use greater of AM or PM Totals for Calculated Train Load	**TOTAL**	120	120

TOTAL OCCUPANT LOAD FOR CALCULATIONS **120**

EMERGENCY EXITING CALCULATIONS

Continued

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130 2017 Edition

Downtown Redmond Station	Type: Center Platform	DATE: 7/19/2018
	System: Downtown Redmond Link	DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Platform in less than 4 minutes) **CAPACITY CALCULATIONS**

(EXIT LANES AND CAPACITY PROVIDED)

ELEMENT	NUMBER	X INCHES	x pim	=	CAPACITY
PLATFORMS, CORRIDORS AND RAMPS					
Ramps	0	0	2.08	=	0
Other	0	0	2.08	=	0
STAIRS AND ESCALATORS					
Public Stair - Platform to East Entry Exit	1	72	1.41	=	102
Public Stair - Platform to West Entry Exit	1	72	1.41	=	102
Egress Stair - Platform to East Grade Exit	1	66	1.41	=	93
Escalator	0	40	1.41		0
			Platform Exit Capacity		**297**

(Fractional values are rounded)

NOTES:

1. In calculating escalator capacity, one escalator per level shall be considered as being out of service.
2. Up escalators are not assumed to be reversable for this exercise.

EMERGENCY EXIT CAPACITY **TEST 1**

(EVACUATE PLATFORM IN 4 MINUTES OR LESS)

Fp = (platform exits flow time) = Platform occupancy load / Platform exit capacity

120 / 297 = 0.403 Minutes

PASS

EMERGENCY EXITING CALCULATIONS

Continued

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130 | 2017 Edition

Downtown Redmond Station	Type: Center Platform	DATE: 7/19/2018
	System: Downtown Redmond Link	DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Station to Point of Safety in less than 6 minutes) East **TEST 2A**

(EVACUATE THE TOTAL OCCUPANT LOAD FROM THE MOST REMOTE POINT ON PLATFORM TO A POINT OF SAFETY IN 6 MINUTES OR LESS)

Walking Time for longest exit route: T= Tp + T1 + T2 + T3 …

Use 124 FPM for platform, corridors and ramp travel speeds
Use 48 FPM for stairs and escalator travel speeds, use vertical distance
Use 200 FPM for concourse and other areas with lesser pedestrian density

	Feet	FPM		
			=	Minutes
Tp (Walking time on platform)	190	124	=	1.532
T1 (West Public Stair)	31	48	=	0.646
T2 (End of Stair to Point of Safety)	33.33	200	=	0.167
T (walking time for longest exit route to point of safety)				**2.345**

Waiting time at platform exits: Wp = Fp - Tp

Fp = Platform exits flow time
Tp = Walking time on platform

		Platform exits flow time		Walking time on platform		Maximum wait time
Wp	**=**	**0.403**	**-**	**1.532**	**=**	**0.000** Minutes

Total Exit Time = T+W_p

to Point of Safety

T = walking time for longest exit route
Wp = Waiting time at platform exits **=**

		Walking time for longest exit route		Waiting time at platform exits		Total exit time
Total Exit Time to Point of Safety	**=**	**2.345**	**+**	**0.000**	**=**	**2.345** Minutes

EVACUATION TIME LESS THAN 6 MINUTES- PASS

SOUNDTRANSIT

July 10, 2018

Martin Pastuchua
Directors of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 8 DRLE: NE 70th Street and 176th Avenue NE Intersection Control

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on the proposed intersection control for NE 70th Street and 176th Avenue NE. The City of Redmond identified a double-lane roundabout in its Marymoor Subarea Plan, but upon additional analysis, it was shown that a double-lane roundabout operates near capacity under both the 2035 Baseline and 2035 Marymoor Subarea growth scenarios with the light rail project Build trips. In addition, the East Lake Sammamish Trail crosses NE 70th Street. The future extension of the trail, to be built as part of the DRLE project, introduces a high volume regional trail crossing at the intersection. The high trail volumes would restrict the free flowing right turn movements through the roundabout. King County also expressed safety concerns with the trail crossing a double-lane roundabout. Based on the information and input, the proposed intersection control for NE 70th Street and 176th Avenue NE is a traffic signal. The analysis to support this conclusion can be found in the attached Downtown Redmond Link Extension Project Roundabout Analysis Memo.

References

Downtown Redmond Link Extension Project Roundabout Analysis Memo

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen
Corridor Design Manager, DRLE

Concurrence:

MP File / 7/18/18
Date

Martin Pastucha
Director of Public Works
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Downtown Redmond Link Extension Project Roundabout Analysis

Prepared for

SOUNDTRANSIT

Central Puget Sound Regional Transit Authority
401 S. Jackson Street
Seattle, WA 98104

Prepared by

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104
T. 206.394.3700 F. 1.855.542.6353
www.parametrix.com

INTRODUCTION

The City of Redmond has recently adopted the Marymoor Subarea Plan. This plan identifies a vision for the neighborhood (Marymoor Village) surrounding the SE Redmond Station, which includes a transition from light industrial uses to a mix of residential, employment, education, and commercial uses. As part of the plan, the street grid would be revised and new development would be housed in mixed-use and residential buildings.

These modifications were developed in anticipation of construction of the SE Redmond Station, which is part of the proposed Downtown Redmond Link Extension Project. The expectation is that the subarea would serve a substantial number of regional commuters as well as local travelers. The land use changes planned for the Marymoor Subarea would be accompanied by associated increases in automobile, bicycle, pedestrian, and transit activity. These increases would affect the operation of the transportation network, including several intersections within or near the subarea.

The roadway network and several intersections in southeast Redmond would be modified for the Project Baseline with Marymoor Subarea Plan. These changes would provide more of a grid network in the subarea, which would better accommodate anticipated traffic volumes and facilitate multimodal access. The Marymoor Subarea Plan includes a roundabout for intersection control for intersection #35 (NE 70th Street and 176th Avenue NE).

PURPOSE OF MEMORANDUM

The purpose of this memorandum is to analyze the feasibility of the proposed roundabout control at intersection #35 under several growth scenarios. The growth rates for these scenarios are discussed in more detail in the Downtown Redmond Link Extension SEPA Addendum Appendix A—Transportation Technical Report. The scenarios analyzed in this memorandum included the 2017 (Existing) conditions and 2035 No Build and Build design year conditions for the Baseline and Marymoor Subarea growth rates. The Build conditions reflect the Proposed Design Refinements for the Downtown Redmond Link Extension as detailed in the 2011 East Link Project Final Environmental Impact Statement.

Intersection #35 Traffic Operations

Under each of the growth rate scenarios, intersection #35 was analyzed as a four-leg intersection under Build conditions for the 2035 Baseline and 2035 Marymoor Subarea scenarios. The fourth leg of this intersection provides access to/from the parking garage for the SE Redmond Station. Under the Proposed Design Refinements with Marymoor Subarea Plan, the driveway to the ramps accessing the parking garage at the SE Redmond Station would serve as the southbound leg of intersection #35. In order to retain the Marymoor Subarea Plan's proposed connection between Redmond Way and NE 70th Street, an additional intersection would be installed along NE 70th Street between Redmond Way and 176th Avenue NE. Under all other scenarios (existing conditions and No Build Alternatives), intersection #35 functions as a three-leg intersection with no access to/from the north. The roundabout operations analysis was conducted using the software program SIDRA (6.1). SIDRA is an analytical traffic evaluation software application that uses lane-by-lane and vehicle path models to provide estimates of capacity. This roundabout analysis was consistent with WSDOT's SIDRA Policy and Settings[1].

[1] http://www.wsdot.wa.gov/design/traffic/analysis/

A common method of measuring traffic operations is level of service (LOS), a scale ranging from A to F, to designate the LOS depending on the delay conditions at the intersection. LOS A represents the best conditions with minimal delay and LOS F represents the worst conditions with severe congestion. LOS ratings are based on the ratio of actual traffic volumes to traffic control delay of the intersection or roadway. **Table 1** lists the intersection LOS delay thresholds for signalized and roundabout intersections. At signalized intersections, LOS is calculated based on the delay of all vehicles entering the intersection. According to WSDOT's SIDRA Policy and Settings, LOS for roundabout intersections is calculated using the same thresholds as signalized intersections.

Table 1. Level of Service Thresholds

	Average Control Delay per Vehicle (seconds)	
Level of Service	**Signalized Intersections (seconds/vehicle)**	**Roundabouts (seconds/vehicle)**
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 20
C	> 20 and ≤ 35	> 20 and ≤ 35
D	> 35 and ≤ 55	> 35 and ≤ 55
E	> 55 and ≤ 80	> 55 and ≤ 80
F	> 80	> 80

Note: The LOS criteria are based on control delay, which includes initial deceleration delay, queue move-up time, stopped delay, and final deceleration delay.

Source: Transportation Research Board Highway Capacity Manual, 2000

The LOS criteria for roundabouts are supplemented by using the volume-to-capacity ratio (v/c). The v/c ratio evaluates the congestion of an intersection, approach, or movement based on the observed volume compared to the capacity of the intersection, approach, or movement. As shown in **Table 2,** LOS F is assigned to individual lanes in roundabouts regardless of the control delay if the v/c ratio exceeds 1.0. For overall intersection and approaches at roundabouts, LOS is measured solely against the control delay thresholds.

Table 2. Level of Service Thresholds for Roundabouts

	LOS by Volume-to-Capacity Ratio	
Control Delay at Roundabouts (seconds/vehicle)	**v/c < 1.0**	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

Note: For approaches and overall intersection assessment, LOS is defined solely by control delay.

Source: Transportation Research Board Highway Capacity Manual, 2010

Analysis Findings

An operational analysis was conducted for the following scenarios:

- *2017 Existing*—2017 traffic volumes, existing lane geometry, single-lane roundabout, no southbound leg.
- *2035 No Build Baseline*—2035 No Build Baseline traffic volumes, existing lane geometry, single-lane roundabout, no southbound leg.
- *2035 Build Baseline*—2035 Build Baseline traffic volumes, single-lane and double-lane roundabouts, with the parking garage access as the southbound leg.
- *2035 No Build Marymoor Subarea*—2035 No Build Marymoor Subarea growth traffic volumes, single-lane and double-lane roundabouts, with the new connection between 176th Street NE and SR 202/Redmond Way as the southbound leg.
- *2035 Build Marymoor Subarea*—2035 Build Marymoor Subarea growth traffic volumes, single-lane and double-lane roundabouts, with the parking garage access as the southbound leg, new connection between 176th Street NE and SR 202/Redmond Way shifted approximately 200 feet east.

WSDOT's SIDRA policy indicates that the Measure of Effectiveness (MOE) for roundabouts is not primarily LOS but instead a mix of MOEs. The MOEs for roundabouts in order of importance are v/c ratios, percent stopped, queues, and then LOS. Therefore, **Table 3** summarizes the v/c ratios for all alternatives for overall intersection and by approach.

WSDOT's SIDRA Policy settings states that v/c ratios above 0.85 are concerning and require additional detailed analysis. Similarly, the 2010 Highway Capacity Manual does not define a standard for v/c ratios, but international and domestic experience suggests that v/c ratios in the range of 0.85 to 0.9 represent an approximate threshold for satisfactory operation.

As shown in **Table 3**, based on the v/c ratio, a single-lane roundabout can sufficiently handle traffic operations under 2017 Existing conditions. The roundabout v/c ratio increases as it experiences growth in volume under 2035 conditions. For the 2035 No Build Baseline scenario, a single-lane roundabout will provide enough capacity to handle the additional volume. But when Build trips are added, a single-lane roundabout will no longer be adequate to handle the increase in volume. This is due to vehicular increases on the westbound approach in the AM peak hour and northbound approach in the PM peak hour. However, a double-lane roundabout configuration under the Baseline growth scenario with Build trips operates below a v/c ratio of 1.0, but is approaching capacity during the PM peak hour because the v/c ratio is 0.92.

The area around the SE Redmond Station is projected to experience more growth under the 2035 Marymoor Subarea conditions. For the 2035 No Build Marymoor Subarea scenario, the single-lane roundabout does not provide enough capacity for sufficient flow through this roundabout. This is primarily due to the southbound approach in the AM peak hour and the northbound approach in the PM peak hour. However, a double-lane roundabout does have the capacity to handle these operations.

Table 3. Existing and Design Year 2035 Traffic Operations—v/c ratio

				AM Peak Hour				PM Peak Hour			
				Channelization	V/C Ratio	Appr.	V/C	Channelization	V/C Ratio	Appr.	V/C
1	2017 Existing		Single-lane	EB: 1 TR WB: 1 LT NB: 1 LR SB: N/A	0.25	EB	0.06	EB: 1 TR WB: 1 LT NB: 1 LR SB: N/A	0.31	EB	0.08
						WB	0.22			WB	0.19
						NB	0.25			NB	0.31
2	2035 Baseline Growth Scenario	No Build	Single-lane	EB: 1 TR WB: 1 LT NB: 1 LR SB: N/A	0.33	EB	0.07	EB: 1 TR WB: 1 LT NB: 1 LR SB: N/A	0.44	EB	0.13
						WB	0.33			WB	0.29
						NB	0.33			NB	0.44
3		Build	Single-lane	EB: 1 LTR WB: 1 LTR NB: 1 LTR SB: 1 LTR	1.03	EB	0.20	EB: 1 LTR WB: 1 LTR NB: 1 LTR SB: 1 LTR	1.14	EB	0.45
						WB	1.03			WB	0.54
						NB	0.42			NB	1.14
						SB	0.36			SB	0.81
4			Double-lane	EB: 1 LT, 1 TR WB: 1 LT, 1 TR NB: 1 LT, 1 R SB: 1 L, 1 TR	0.48	EB	0.08	EB: 1 LT, 1 TR WB: 1 LT, 1 TR NB: 1 LT, 1 R SB: 1 L, 1 TR	0.92	EB	0.18
						WB	0.48			WB	0.25
						NB	0.39			NB	0.92
						SB	0.24			SB	0.46
5	2035 Marymoor Subarea Growth Scenario	No Build	Single-lane	EB: 1 LTR WB: 1 LTR NB: 1 LTR SB: 1 LTR	1.86	EB	0.43	EB: 1 LTR WB: 1 LTR NB: 1 LTR SB: 1 LTR	1.26	EB	1.26
						WB	1.03			WB	0.62
						NB	0.51			NB	1.17
						SB	1.86			SB	0.60
6			Double-lane	EB: 1 LT, 1 TR WB: 1 LT, 1 TR NB: 1 LTR, 1 R SB: 1 LT, 1 R	0.49	EB	0.19	EB: 1 LT, 1 TR WB: 1 LT, 1 TR NB: 1 LTR, 1 R SB: 1 LT, 1 R	0.54	EB	0.52
						WB	0.47			WB	0.34
						NB	0.26			NB	0.54
						SB	0.49			SB	0.33
7		Build	Single-lane	EB: 1 LTR WB: 1 LTR NB: 1 LTR SB: 1 LTR	2.14	EB	0.42	EB: 1 LTR WB: 1 LTR NB: 1 LTR SB: 1 LTR	1.75	EB	1.68
						WB	2.14			WB	1.06
						NB	0.77			NB	1.48
						SB	0.04			SB	1.75
8			Double-lane	EB: 1 LT, 1 TR WB: 1 LT, 1 TR NB: 1 LTR, 1 R SB: 1 LTR, 1 R	0.99	EB	0.27	EB: 1 LT, 1 TR WB: 1 LT, 1 TR NB: 1 LTR, 1 R SB: 1 LTR, 1 R	0.89	EB	0.86
						WB	0.99			WB	0.50
						NB	0.40			NB	0.89
						SB	0.04			SB	0.76

Note: Black highlight indicates approach does not exist while grey highlight indicates an unacceptable v/c ratio, as specified in WSDOT design manual.

The roundabout configuration is changed between the No Build and Build scenarios as the north leg of the roundabout becomes the access to/from the parking garage, and the connection between Redmond Way and NE 70th Street is shifted approximately 200 feet east of the roundabout intersection. A single-lane roundabout under the Marymoor Subarea is over capacity and would not sufficiently handle the total growth forecast for the intersection. This is due to the westbound approach in the AM peak hour and southbound (park-and-ride) approach in the PM peak hour. A double-lane roundabout is forecasted to operate with a better v/c ratio, but even then the westbound approach in the AM peak hour is approaching capacity and may result in long queues and additional delays.

A double-lane roundabout operates near capacity under both the 2035 Baseline and 2035 Marymoor Subarea growth scenarios with the Build trips. In addition, although the City of Redmond identified a double-lane roundabout in its Marymoor Subarea plan, the City recognizes that there are right-of-way and pedestrian comfort trade-offs with building a double-lane roundabout.

Therefore, the proposed intersection control for intersection #35 should be a traffic signal with turn lanes as needed. Detailed operational analysis of the proposed traffic signal is documented in the Downtown Redmond Link Extension SEPA Addendum, Appendix A—Transportation Technical Report.

SOUNDTRANSIT

July 16, 2018

Todd Short
Fire Marshal
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 9 DRLE: Microsoft Building 50 Parking Garage Fire Access

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on the revised fire access to the Microsoft Building 50 Parking Garage. Currently, existing fire access extends around the garage on the east, south, and west sides. The current City of Redmond Municpal Code states, according to Chapter 15.06.013, Section 503.1.1.1 that "the fire apparatus roadway shall extend within 50 feet of at least 25 percent of the perimeter of the building." The existing fire apparatus roadway extends within 50 feet of approximately 84 percent of the perimeter of the parking garage. See Exhibit 1 attached.

The Downtown Redmond Link Extension project will construct light rail in a retained cut that passes along the southwest corner of the parking garage, cutting off fire access to the west side of the parking garage. In order to restore parking and fire access to the west side of the building, a new access point will be constructed. With the new access point, the revised fire apparatus roadway extends within 50 feet of approximately 66 percent of the parking garage. Modeled fire flow of 3,500 gpm meets City requirements for the garage and Microsoft Building 50. See Exhibit 2 attached.

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen
Corridor Design Manager, DRLE

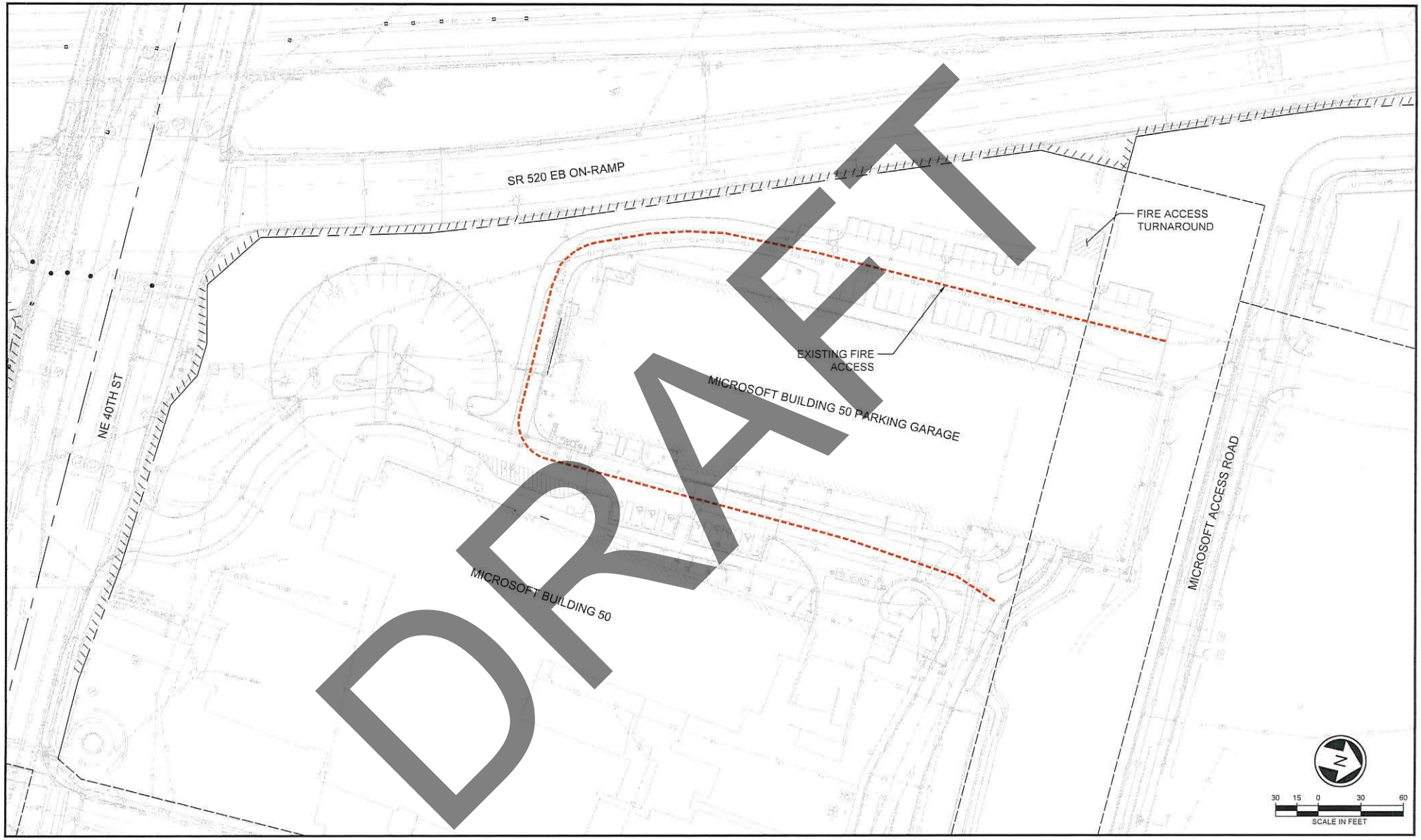
Concurrence:

Todd Short, 7/18/2018
Date

Todd Short, Fire Marshal
City of Redmond

Attachments:
Exhibit 1 – Microsoft Building 50 Parking Garage Existing Fire Access
Exhibit 2 – Microsoft Building 50 Parking Garage Revised Fire Access

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

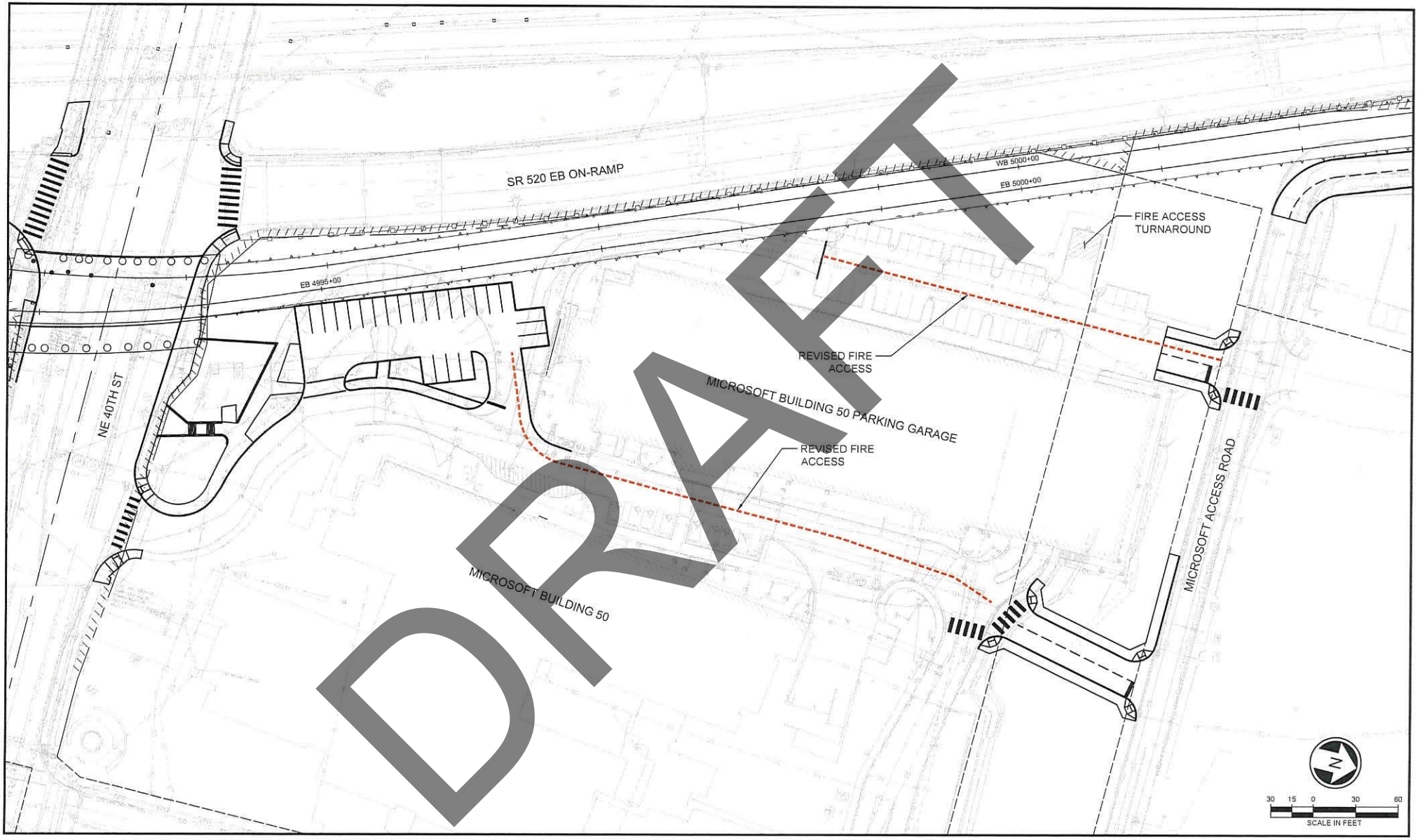


05/16/2018

SOUNDTRANSIT

DOWNTOWN REDMOND LINK EXTENSION

EXHIBIT 1 - MICROSOFT BUILDING 50 PARKING GARAGE EXISTING FIRE ACCESS



05/16/2018

SOUNDTRANSIT

DOWNTOWN REDMOND LINK EXTENSION

EXHIBIT 2 - MICROSOFT BUILDING 50 PARKING GARAGE REVISED FIRE ACCESS

SOUNDTRANSIT

June 11, 2018

Martin Pastucha
Public Works Director
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 10 DRLE: Stormwater Discharge to the NE 40th Street Trunkline

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond to discharge stormwater runoff from the Downtown Redmond Link Extension DRLE guideway to the City of Redmond's stormwater trunkline in NE 40th Street.

The NE 40th Street trunkline has been modeled to show that there is capacity to accept limited stormwater runoff from the DRLE guideway. The modeling was completed by Otak as part of the NE 40th Street Stormwater Trunkline Extension Phase I Hydrologic & Hydraulic Report. The contributing guideway area is identified in the final Otak Report completed for Redmond and shown in the attached Figure 1.

The conveyance system from the guideway to the trunkline at the intersection of NE40th Street and 156th Avenue NE must be evaluated and sized to manage the 50 year flow. The evaluation, completed by the Design-Build Contractor shall be provided to the City of Redmond for review and concurrence prior to construction.

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

D. DeWitt Jensen

DeWitt Jensen
Corridor Design Manager, DRLE

Attachments:
1. Figure 1

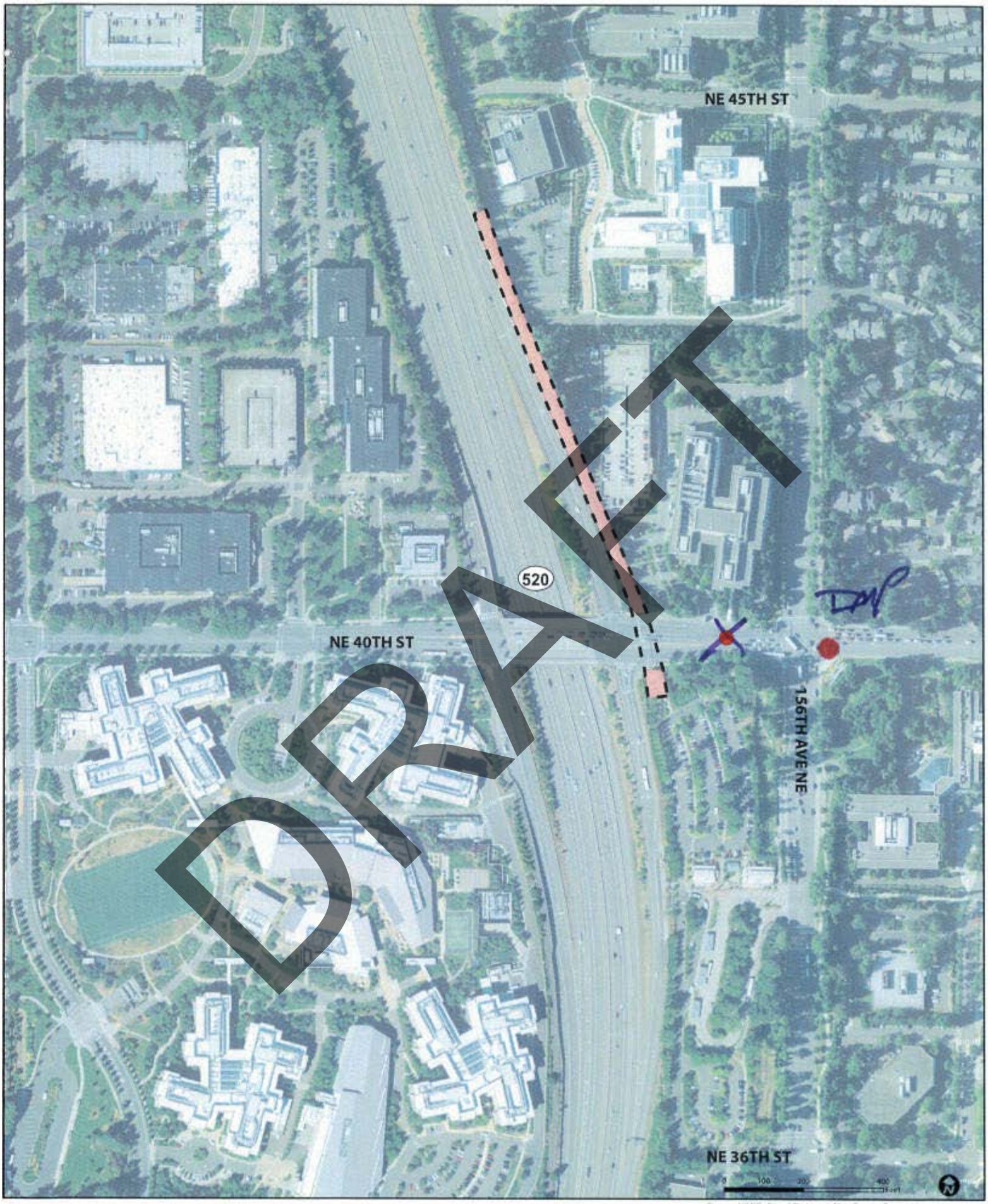
Concurrence:

_____ / June 20, 2018
Date

Martin Pastucha, Public Works Director
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

NOTE: Figure was revised to show connection point To the 40TH ST trunk line. DJ



Guideway

Proposed Guideway Area to Trunkline

Connection Point to NE 40th St Trunk Line

Source: USGS, City of Redmond, King County, Parametrix

Figure 1
Proposed Guideway to Contribute to NE 40th St Trunkline
Downtown Redmond Link Extension

SOUNDTRANSIT

March 6th, 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 011 DRLE: Redmond Central Connector Trail and Stormwater Trunk Line from 164th Avenue to Bear Creek Trail, and Erratic Relocation

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on the Redmond Central Connector (RCC) Trail alignment and stormwater relocation from 164th Avenue NE to the existingBear Creek Trail, relocation of the Erratic, and cost sharing for RCC corridor improvements.

Redmond Central Connector

The City of Redmond has providedSound Transit a 30% trail alignment for the relocated trail alignment from 164th Avenue NE to the Bear Creek Trail (attached). The revised alignment has been incorporated into the civil sheets of the RFP Conceptual Design Drawings. At parcel no. 1225059019, it is assumed that the RCC corridor is 100' wide. If RCC right of way adjancent to this parcel is reduced, the City of Redmond and Sound Transit will reevaluate the trail alignment and property acquisition at that time.

City of Redmond also provided guidance to the Contractor for required finishing, bands, mixing zones, and other treatements per the RCC Design Guidance (attached).
The Contractor shall use the following pavement depths west of 170th Ave NE to accommodate stormwater trunkline maintenance needs:

Pavement Type	Material
Asphalt	4.5" HMA over 4" crushed rock
Concrete	6" unreinforced concrete over 4" crushed rock

Modifications to the 30% trail alignment may be suggested by the final design team based on changes to other disciplines such as; column locations, curb line adjustments, or station design. Changes to the trail alignment must be approved by the City of Remond.

Stormwater Trunk Line
The existing City of Redmond stormwater trunk line will be relocated due to station/column impacts from 164th Avenue NE to the east end of the Downtown Redmond Station, as well as where in conflict with the traction power substation near 170th Avenue NE. The center of pipe of the relocated stormwater trunk line will be located at a minimum 10' from the edge of guidway shaft or station building . Manholes must be located within 10' from the edge of the Redmond Central Connector trail, and where possible will not be located within the trail.

The City's standard is no increase in HGL. As part of PE, the City reviewed the reference design (see attachment) and found it to be an acceptable design solution with a small increase in HGL. The design builder will have to apply for a deviation if the standard cannot be met in final design.

Similar to the RCC trail alignment at parcel no. 1225059019, the stormwater trunk alignment may be reconsidered by Sound Transit and City of Redmond should right-of-way not be available.

Erratic Relocation
The City owns an art piece called the Erratic, located near the southwest corner of 166th Ave NE and Cleveland St. The art must be relocated because its current location conflicts with the conceptual designs for the Downtown Redmond station area. The City and Sound Transit agree that the Erratic will be relocated to Gilman Landing consistent with the attached conceptual drawings. The City agrees to conduct the site preparation and relocation work under separate contract(s) so that the Erratic is removed from its existing location by March 31, 2020.

Funding of RCC Corridor Improvements
Subject to City Council and Sound Transit Board approval, City and Sound Transit staff have agreed to share in the funding of RCC corridor improvements as follows:

- Sound Transit will pay the City to relocate the Erratic and complete site preparation at Gilman Landing (finish design, permitting, construction) in the amount of $576,300.
- Sound Transit will take full funding responsibility for RCC elements west of 166th
- Sound Transit will take full funding responsibility for signal improvements at Cleaveland/166th
- Sound Transit will take full funding responsibility for RCC corridor landscaping, and will be allowed to count this as part of the tree mitigation plan
- The City and Sound Transit will evenly split funding responsibility for all other RCC elements east of 166th, including but not limited to:

    - The trail itself, including appropriate pavement depths to support stormwater maintenance requirements
    - Braids/ties/benches
    - Landings (apart from landscaping)
    - Conduit
    - Lighting
    - Any additional right-of-way costs at the SE corner of 166th Ave NE and Cleveland St
    - Storm water management facilities specifically required for the RCC trail (bioswales, raingardens, etc.)

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Raben
Executive Project Director, DRLE

Concurrence:

Kristi Wilson / 3/11/19
Date

Kristi Wilson, Interim Director of Public Works

City of Redmond

Attachments:
RCC Design Guidance drawings
Gilman Landing Conceptual drawings
PE Stormwater Trunkline design

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
ST Document Control

Xrefs:
xRLE-L95-VSF
xRLE-L90-CRP100
xRLE-GIS-VSF
xRLE-RCC-Landscape
RLE-GB-TB22x34
xRLE-GIS-VUT
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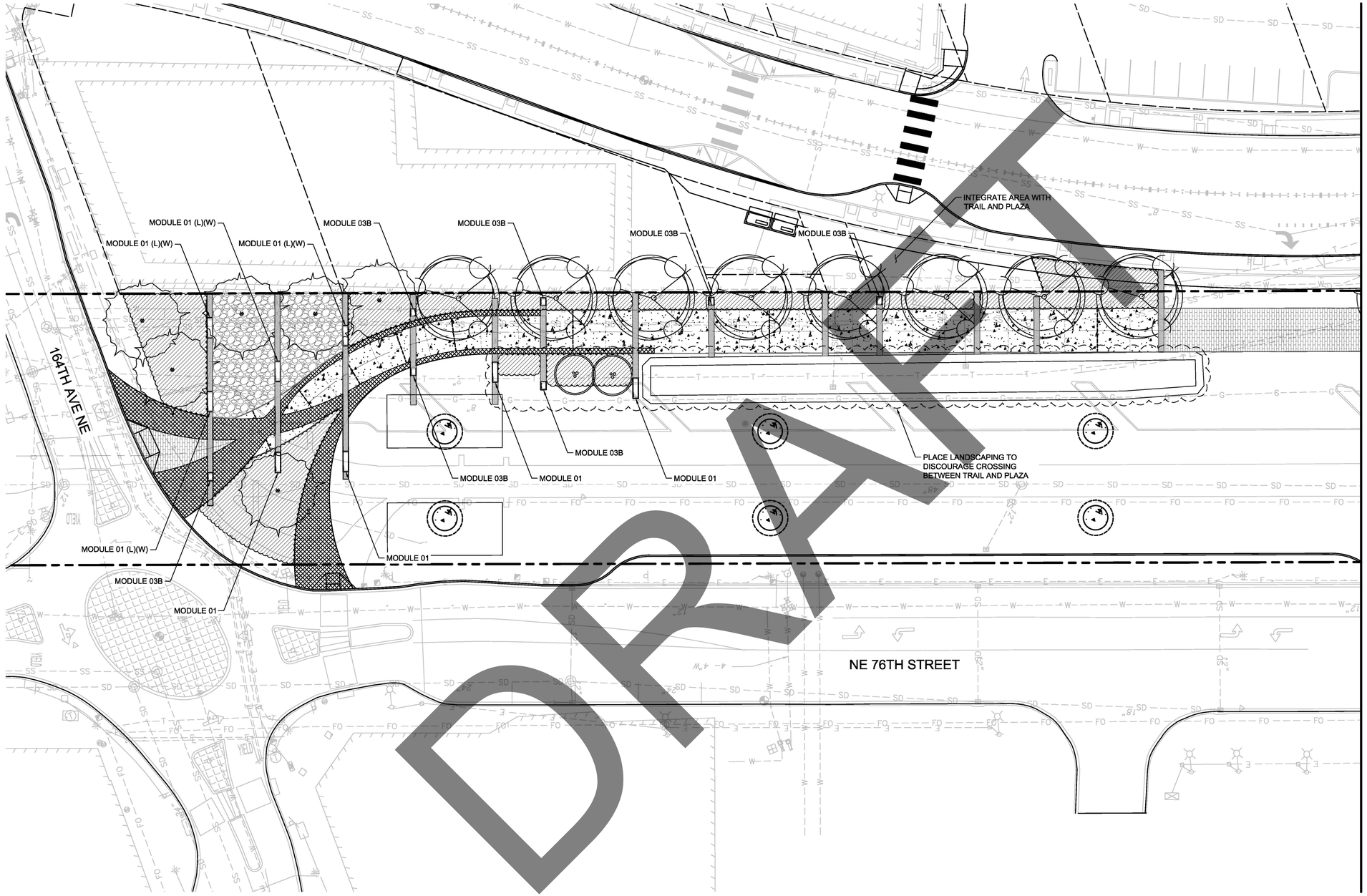
xRLE-RCC-Trail
xRLE-L90-VRX
xRLE-L90-CDP100



MATCHLINE SEE DWG LP-02

GENERAL SHEET LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED TOPO LINES PER SURVEY
- TRAIL CENTER LINE

CEMENT CONCRETE MODULE (TIE)

- MODULE 01
- MODULE 01B
- MODULE 02
- MODULE 02B
- MODULE 02C
- MODULE 03
- MODULE 03B

MATERIALS LEGEND

SYMBOL	MATERIAL/ELEMENT	REFERENCE
	PRIMARY TRAIL PAVEMENT – (ASPHALT)	REFER TO CIVIL
	CEMENT CONCRETE PAVEMENT – FINISH TYPE 1 (TRAIL PAVEMENT)	1 | LD-01
	CEMENT CONCRETE PAVEMENT – FINISH TYPE 2 (TRAIL BANDING)	2 | LD-01
	CEMENT CONCRETE PAVEMENT – FINISH TYPE 3 (FLUSH TIES)	2 | LD-01
	CONCRETE UNIT PAVERS	7 | LD-01
	CRUSHED ROCK AND EMBEDDED RAIL PAVEMENT	5 | LD-01
	CRUSHED ROCK PAVEMENT	4 | LD-01

PLANTING LEGEND

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- TREE TYPE A – TREE ABOVE TOP OF RAIL
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- TREE TYPE C – SHORT STATURE TREE
- PLANTING TYPE 1
- PLANTING TYPE 2
- PLANTING TYPE 3
- BIOFILTRATION PLANTING

N

20 10 0 20 40
SCALE IN FEET

NOTES:
(L) = BENCH LIGHTING
(W) = WOOD CLADDING FOR BENCH

SEE SHEETS LD-00, LD-04, AND LD-05

CONCEPTUAL DESIGN

No.	DATE	DSN	CHK	APP	REVISION

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APPROVED BY:

SUBMITTED BY:
DATE:
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CityofRedmond WASHINGTON

SCALE: 1"=20'
FILENAME: RLE-RCC-TRAIL-SHEETS
CONTRACT No.:
DATE:

REDMOND CENTRAL CONNECTOR
DESIGN GUIDANCE

HARDSCAPE/URBAN DESIGN PLANS

AUGUST 2018

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xRLE-RCC-Landscape
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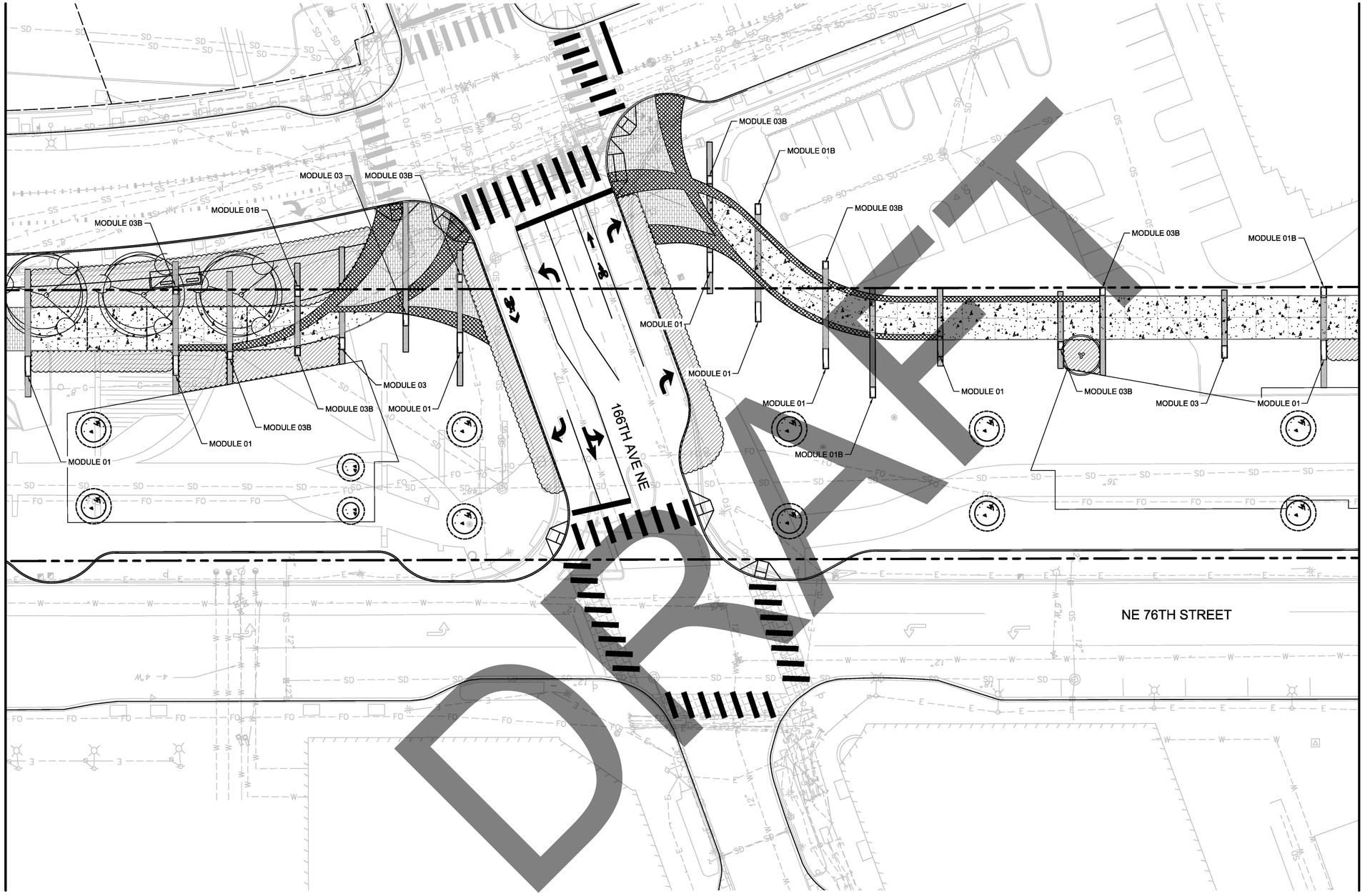

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REDMOND CENTRAL CONNECTOR
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HARDSCAPE/URBAN DESIGN PLANS

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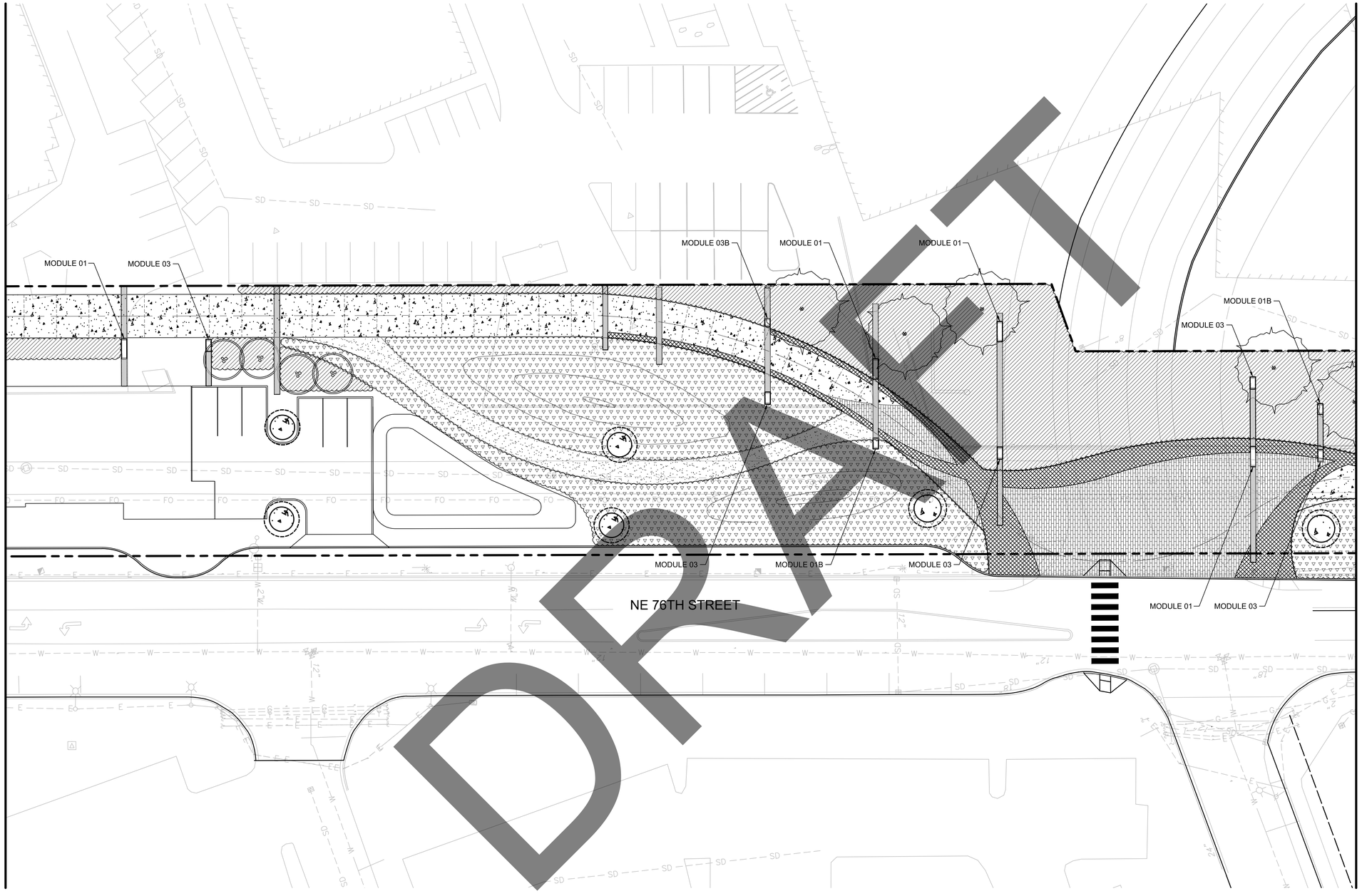

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REDMOND CENTRAL CONNECTOR
DESIGN GUIDANCE

HARDSCAPE/URBAN DESIGN PLANS

AUGUST 2018

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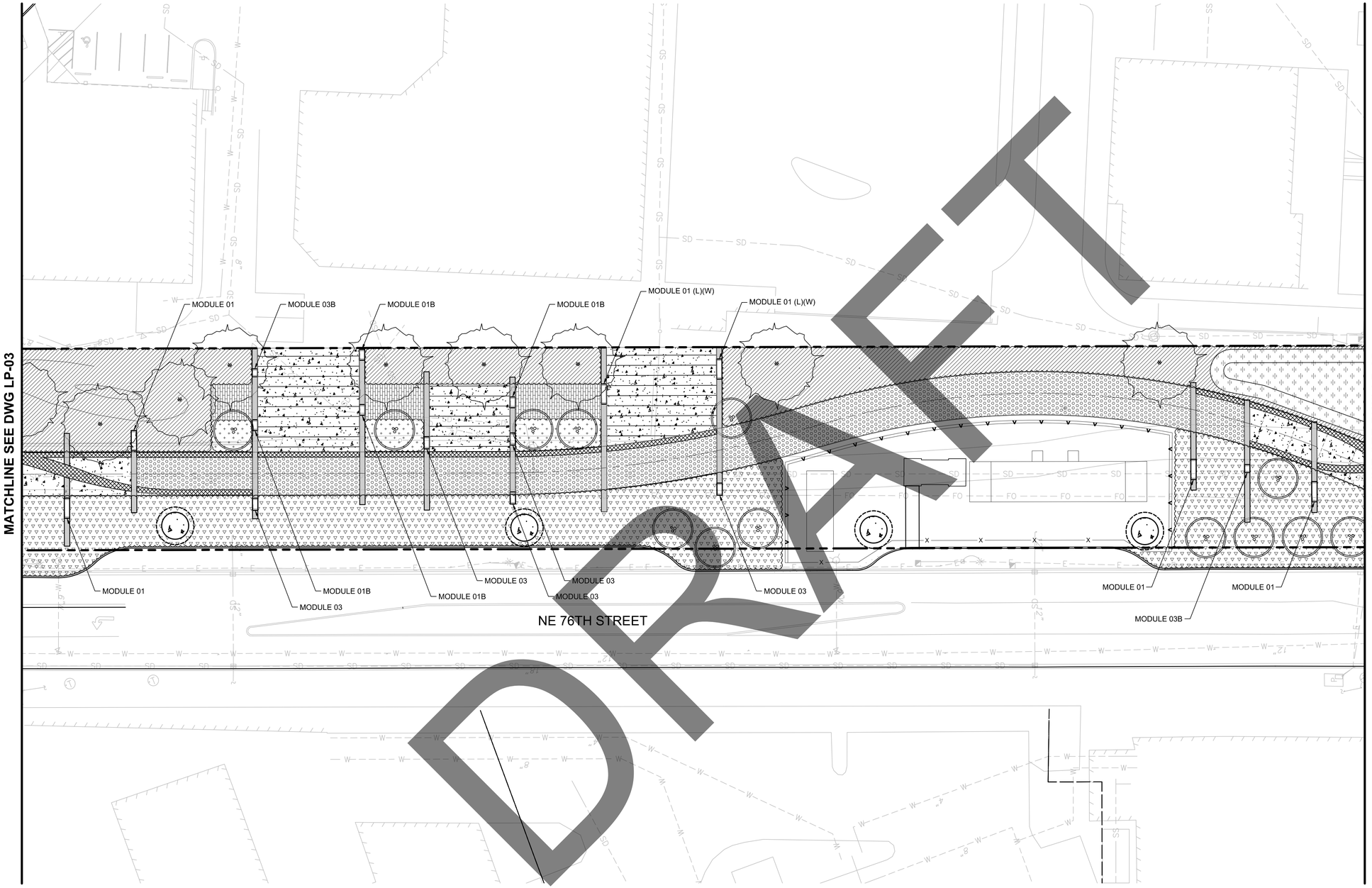

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SEE SHEETS LD-00, LD-04, AND LD-05

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REDMOND CENTRAL CONNECTOR
DESIGN GUIDANCE

HARDSCAPE/URBAN DESIGN PLANS

AUGUST 2018

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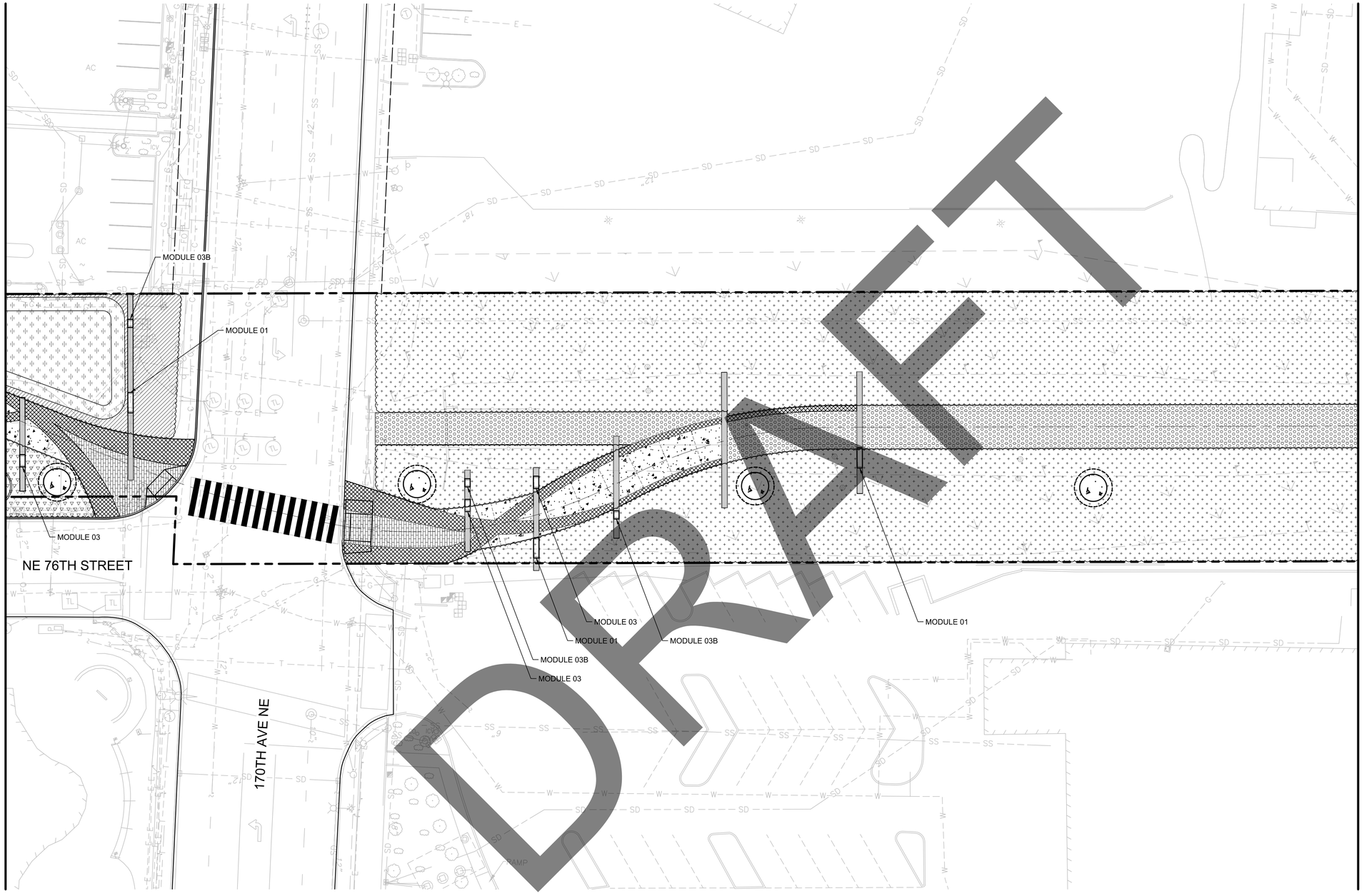

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REDMOND CENTRAL CONNECTOR DESIGN GUIDANCE

HARDSCAPE/URBAN DESIGN PLANS

AUGUST 2018

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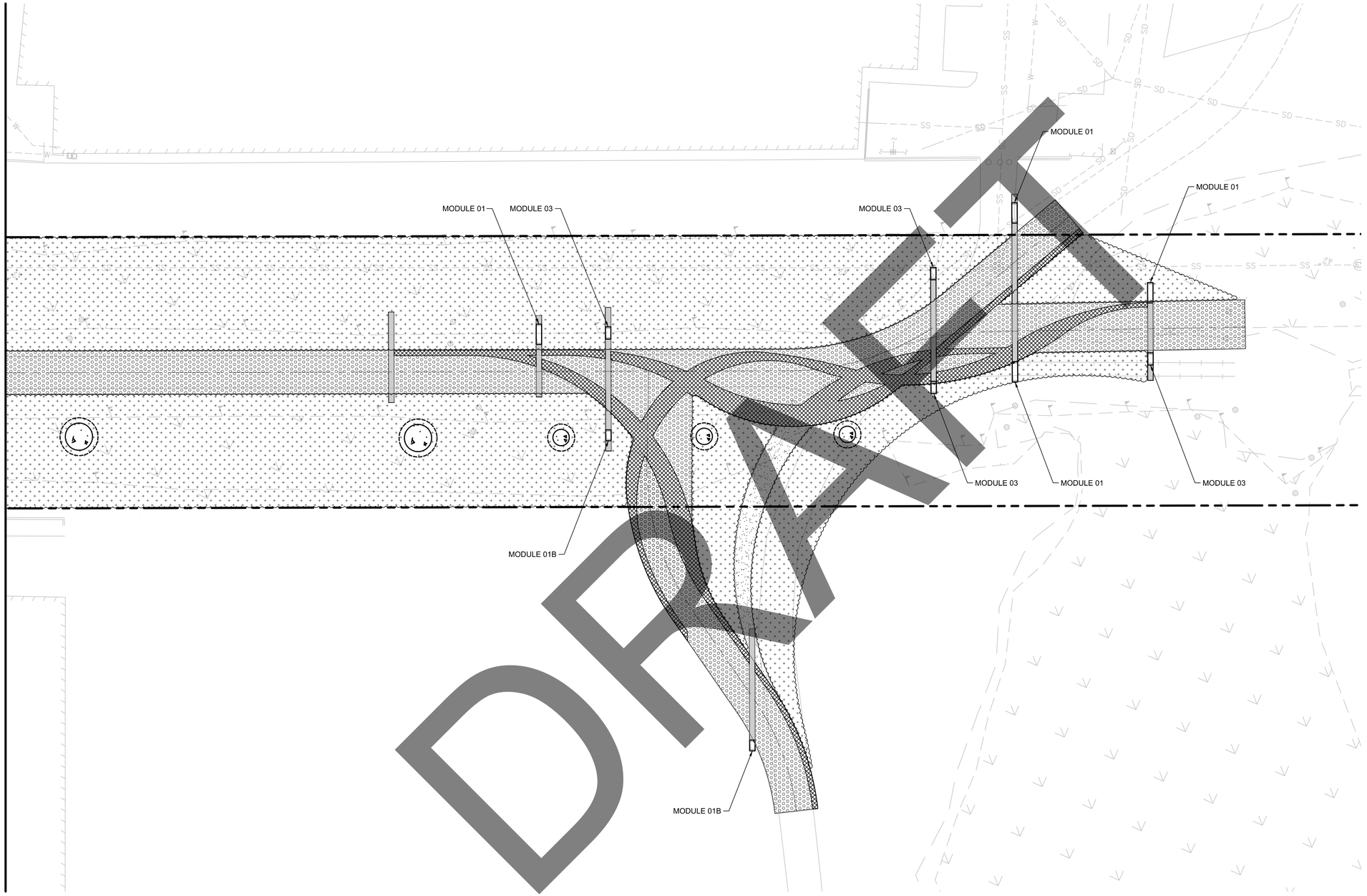

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REDMOND CENTRAL CONNECTOR
DESIGN GUIDANCE

HARDSCAPE/URBAN DESIGN PLANS

AUGUST 2018

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MATERIALS SCHEDULE

PAVEMENTS / FLATWORK

SYMBOL	MATERIAL	REFERENCE	DESCRIPTION	FINISH	NOTES
	PRIMARY TRAIL PAVEMENT	REFER TO CIVIL	ASPHALT	STANDARD WSDOT	CIVIL TO SPEC.
	CEMENT CONCRETE PAVEMENT - FINISH TYPE 1	1 | LD-01	TYPICAL TRAIL	LIGHT BROOM FINISH - PERPENDICULAR TO TRAVEL	SCORE PER SPECS & PLANS
	CEMENT CONCRETE PAVEMENT - FINISH TYPE 2	2 | LD-01	TRAIL "BANDING"	MEDIUM BRROM FINISH - DIRECTION IN LONGITUDINAL MOVEMENT OF BAND	COLOR: DAVIS 8084 OR EQUAL. SCORE PER SPECS & PLANS
	CEMENT CONCRETE PAVEMENT - FINISH TYPE 3	2 | LD-01	FLUSH TIES	LIGHT SANDBLAST	SCORE PER SPECS & PLANS
	CONCRETE UNIT PAVERS	1 | LD-01	ABOTSFORD STANDARD	3:1 SIZE, COLORS - CHARCOAL (2A), NATURAL (2B), SHADOW (2C)	MIX PERCENTAGE PER DETAIL, PATTERN PER DETAIL
	CRUSHED ROCK PAVEMENT (CRUSHED ROCK SURFACING)	4 | LD-01	¾" MINUS	COLOR PER CITY OF REDMOND	
	CRUSHED ROCK AND EMBEDDED RAIL PAVEMENT (CRUSHED ROCK SURFACING)	5 | LD-01	¾" MINUS	COLOR PER CITY OF REDMOND	EMBEDDED RAILS RECLAIMED AND PROVIDED BY CITY OF REDMOND ON SITE, IN SECURE LOCATION.

SITE FURNISHINGS

SYMBOL	MATERIAL	REFERENCE	DESCRIPTION	FINISH	NOTES
	CEMENT CONCRETE MODULE- MODULE 01	1 | LD-03	PRECAST CONCRETE MODULE	SMOOTH FINISH	LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
	CEMENT CONCRETE MODULE - MODULE 01B	1 | LD-03	PRECAST CONCRETE MODULE	SMOOTH FINISH	LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
	CEMENT CONCRETE MODULE - MODULE 02	2 | LD-03	PRECAST CONCRETE MODULE	SMOOTH FINISH	LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
	CEMENT CONCRETE MODULE - MODULE 02B	2 | LD-03	PRECAST CONCRETE MODULE	SMOOTH FINISH	LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
	CEMENT CONCRETE MODULE - MODULE 02C	2 | LD-03	PRECAST CONCRETE MODULE		LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
	CEMENT CONCRETE MODULE - MODULE 03	1 | LD-04	PRECAST CONCRETE MODULE		LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
	CEMENT CONCRETE MODULE - MODULE 03B	1 | LD-04	PRECAST CONCRETE MODULE		LAYOUT & ELEVATIONS PER PLANS, FIELD VERIFY W ENGINEER PRIOR TO PLACEMENT
(L) (W) (L) (W)	LIGHT (L), WOOD (W), OR LIGHT AND WOOD (W) (L) MODULE ATTACHMENT	5 | LD-04	(L) WET LOCATION LED LINEAR LIGHT (W) IPE WOOD BENCH		REFER TO ADDITIONAL PLANS, DETAILS AND SECTIONS IN REV 04
	BIKE RACK	1 | LD-02	FOOTING MOUNTED BIKE RACK	REFER TO DETAIL	WESTPORT - NO SCRATCH
	TRASH RECEPTACLE	-	SURFACE MOUNT		PROVIDE 10 UNITS, CITY TO LOCATE
	METAL EDGE	6 | LD-01	4 INCH EXTERIOR GRADE STEEL EDGE	SPECIFICATION 8-02.2	INSTALL WITH STAKES AND CONNECTORS PER DETAIL

PLANTING SCHEDULE

TREES

TREE TYPE A - TREE ABOVE TOP OF RAIL		
GLEDITSIA TRIACANTHOS INERMIS	THORNLESS HONEYLOCUST	2.5" CAL. MIN.
GINKGO BILOBA	MAIDENHAIR TREE	2.5" CAL. MIN.
CERCIDIPHYLLUM JAPONICUM 'ROLFUCHS'	RED FOX KATSURA	2.5" CAL. MIN.
MAGNOLIA GRANDIFLORA 'EDITH BOGUE'	EDITH BOGUE MAGNOLIA	2.5" CAL. MIN.
TREE TYPE B - TREE BELOW TOP OF RAIL		
PRUNUS X YEDOENSIS	YOSHINO CHERRY	2.5" CAL. MIN.
CORNUS 'EDDIE'S WHITE WONDER'	EDDIES WHITE WONDER DOGWOOD	2.5" CAL. MIN.
LABURNUM X WATERERI 'VOSSII'	VOSSII GOLDENCHAIN	2.5" CAL. MIN.
CHIONANTHUS RETUSUS	CHINESE FRINGE TREE	2.5" CAL. MIN.
TREE TYPE C - SHORT STATURE TREE		
ACER CIRCINATUM	VINE MAPLE	MULTI-STEMMED, 8' HT. MIN.
CHIONANTHUS RETUSUS	CHINESE FRINGE TREE	8' HT. MIN.
COTINUS COGGYGRIA X OBOVATUS 'GRACE'	GRACE SMOKETREE	8' HT. MIN.

PLANTING MIXES

PLANTING MIX 1 - ORNAMENTAL		
CALAMAGROSTIS ACUTIFLORA 'KARL FOERESTER'	FEATHER REED GRASS	1 GAL., 30" O.C.
ECHINACEA PURPUREA	PURPLE CONE FLOWER	1 GAL., 24" O.C.
LAVENDULA X INTERMEDIA 'FRED BOUTIN'	ENGLISH LAVENDAR	1 GAL., 24" O.C.
LONICERA PILEATA	PRIVET HONEYSUCKLE	1 GAL., 30" O.C.
MISCANTHUS SINENSIS 'GRAZIELLA'	GRAZIELLA MAIDEN GRASS	1 GAL., 36" O.C.
MOLINIA CAERULEA	PURPLE MOOR GRASS	4" POTS, 18" O.C.
NEPETA X FAASSENII	CATMINT	1 GAL., 24" O.C.
PENNISETUM ALOPECUROIDES 'HAMLEN'	HAMLEN FOUNTAIN GRASS	1 GAL., 24" O.C.
RUDEBEKIA HIRTA	BLACK EYED SUSAN	1 GAL., 24" O.C.
SEDUM 'AUTUNM JOY'	SEDUM 'AUTUMN JOY'	1 GAL., 24" O.C.
SESLARIA AUTUMNALIS	AUTUMN MOORE GRASS	1 GAL., 18" O.C.
PLANTING MIX 2 - PARTIAL SHADE & DROUGHT TOLERANT		
DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS	1 GAL., 18" O.C.
GAULTHERIA SHALLON	SALAL	1 GAL., 24" O.C.
MAHONIA REPENS	CREEPING OREGON GRAPE	1 GAL., 24" O.C.
NEPETA X FAASSENII	CATMINT	1 GAL., 24" O.C.
POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL., 24" O.C.
ROSA GYMNOCARPA	BALD HIP ROSE	1 GAL., 36" O.C.
SPIREA BETULIFOLIA	BIRCHLEAF SPIREA	1 GAL., 24" O.C.
VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	1 GAL., 36" O.C.
PLANTING MIX 3 - WETLAND RESTORATION		
CAMASSIA QUAMASH	CAMAS BULB	5 BULBS/100 SQ. FT.
CAREX DEWEYANA	DEWEY'S SEDGE	4" POTS, 24" O.C.
CAREX OBNUPTA	SLOUGH SEDGE	4" POTS, 24" O.C.
CORNUS SERICEA 'KELSEYI'	DWARF REDTWIG DOGWOOD	1 GAL., 36" O.C.
CORNUS STOLONIFERA	RED OSIER DOGWOOD	2 GAL., 48" O.C.
JUNCUS EFFUSUS	COMMON RUSH	4" POTS, 24" O.C.
PHILADELPHUS LEWISII	MOCK ORANGE	1 GAL., 36" O.C.
ROSA NOOTKANA	NOOKTA ROSE	1 GAL., 36" O.C.
SCIRPUS MICROCARPUS	SMALL FRUITED BULRUSH	4" POTS, 24" O.C.
SYPHIOCARPUS ALBUS	SNOWBERRY	1 GAL., 24" O.C.
SPIRAEA DOUGLASII	DOUGLAS SPIREA	1 GAL., 36" O.C.

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REDMOND ST
LANDSCAPE DETAILS

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PROJECT NO.
XXXXXX

SHEET: 08 OF: 14

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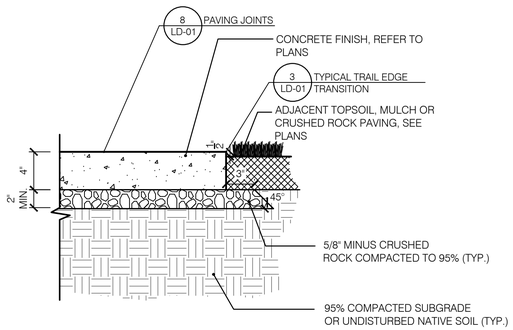
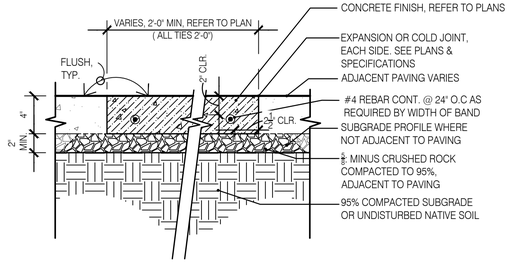
LD-00



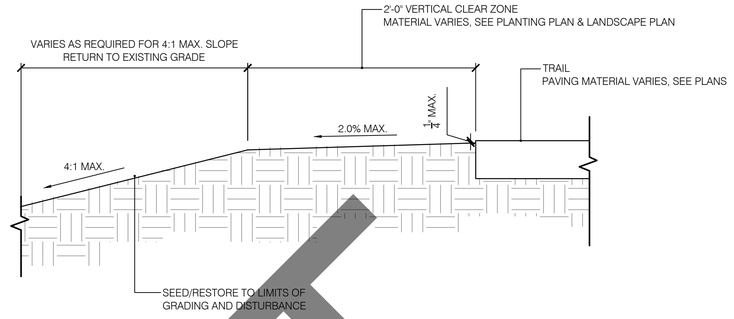
1 CEMENT CONCRETE PAVEMENT - FINISH TYPE 1 & 4

SCALE: 1 1/2" = 1'-0"



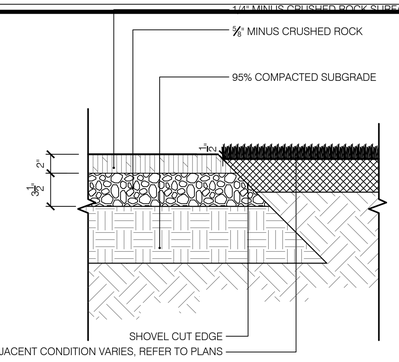
2 CEMENT CONCRETE PAVEMENT - FINISH TYPE 2 & 3

SCALE: 1 1/2" = 1'-0"



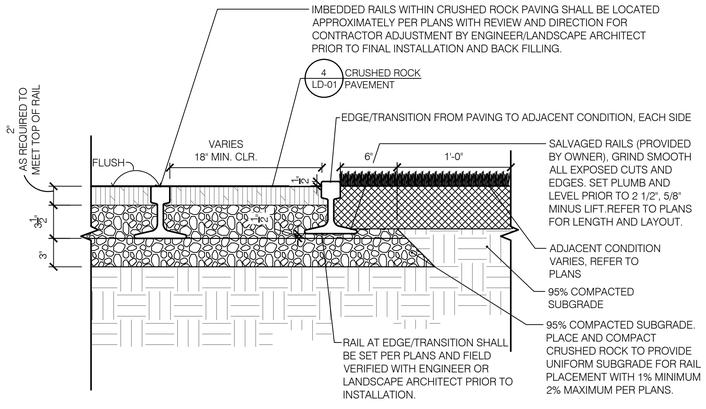
3 TYPICAL TRAIL EDGE TRANSITION

SCALE: 1 1/2" = 1'-0"



4 CRUSHED ROCK PAVEMENT

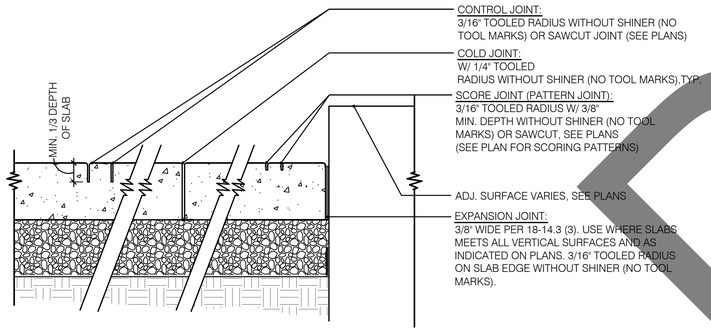
SCALE: 1 1/2" = 1'-0"



NOTE: CONTRACTOR SHALL ASSUME PLACEMENT OF ALL RAILS ON SITE AS IDENTIFIED FOR RE-USE. (FOR BID PURPOSES ASSUME PLACEMENT OF 125 RAILS @ 30' (±) LENGTHS.

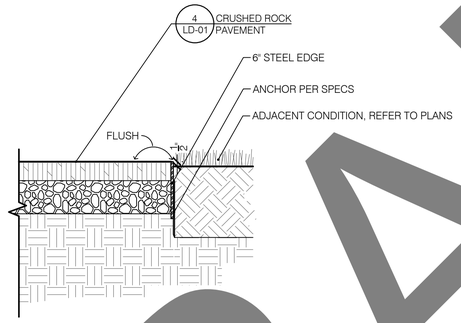
5 CRUSHED ROCK AND EMBENDDED RAIL PAVEMENT

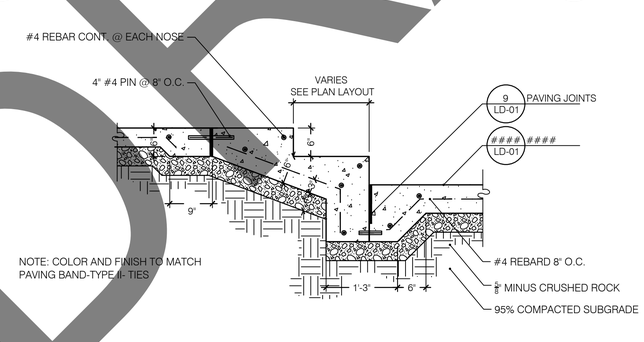
SCALE: 1 1/2" = 1'-0"



8 PAVING JOINTS

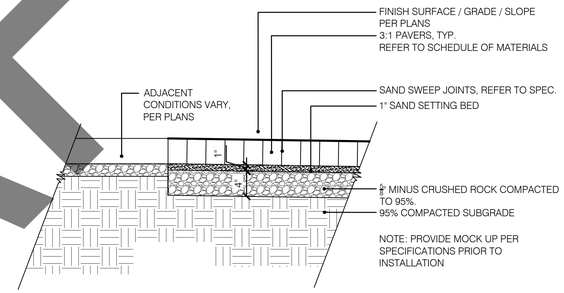
SCALE: NTS





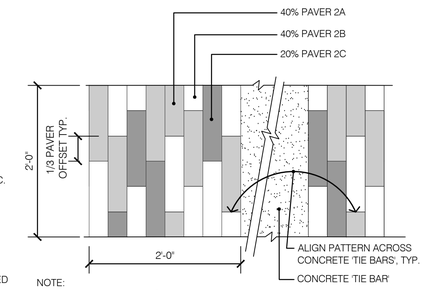
9 STEP AT FLUSH TIE

SCALE: 3/4" = 1'-0"



6 METAL EDGING

SCALE: 1 1/2" = 1'-0"



NOTE:
1) PAVER PATTERN TO BE 1/3 OFFSET RUNNING BOND. REFER TO PLANS FOR POINT OF BEGINNING (P.O.B.)
2) COLOR PATTERN TO BE RANDOM. INSTALLATION OF 40% PAVER 2A, 40% PAVER 2B, 20% PAVER 2C, AS SHOWN ABOVE.
3) AT ANY POINT DURING INSTALLATION IF A NON-RANDOM PATTERN EMERGES, CONTRACTOR TO CORRECT PATTERN PER LANDSCAPE ARCHITECT'S FIELD INSPECTION. SHOW PATTERN IN MOCK UP PER SPECIFICATIONS.

7 CONCRET UNIT PAVERS PATTERN

SCALE: 1" = 1'-0"

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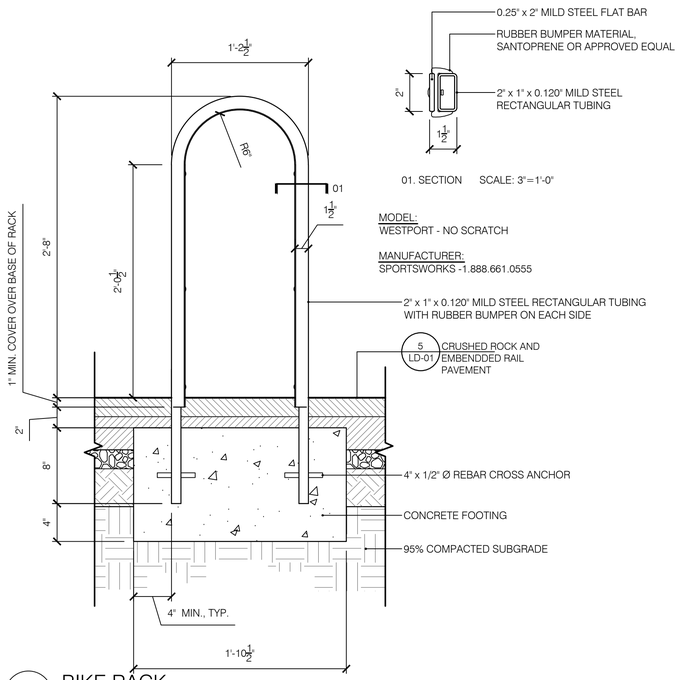
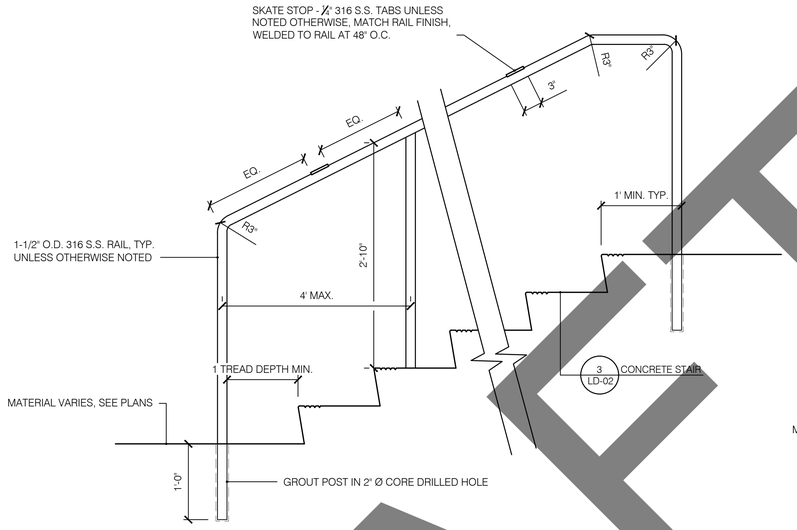


01. SECTION SCALE: 3"=1'-0"

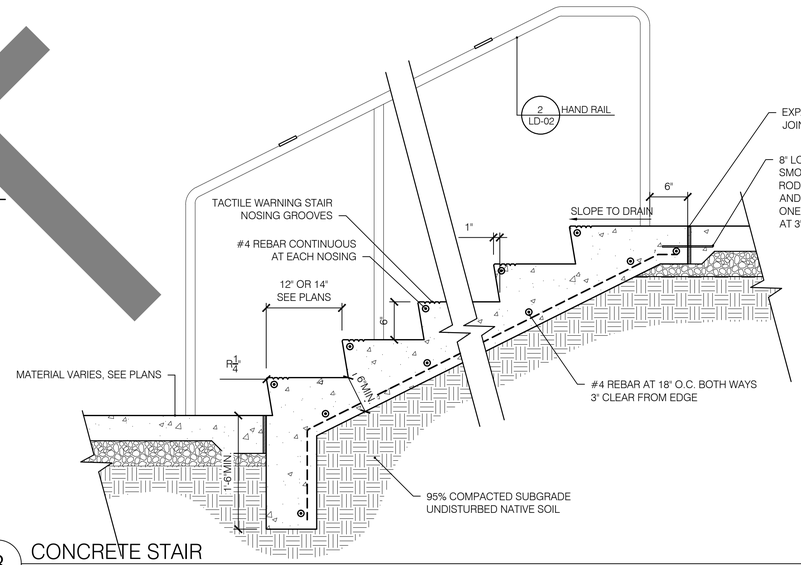
MODEL:
WESTPORT - NO SCRATCH

MANUFACTURER:
SPORTSWORKS -1.888.661.0555

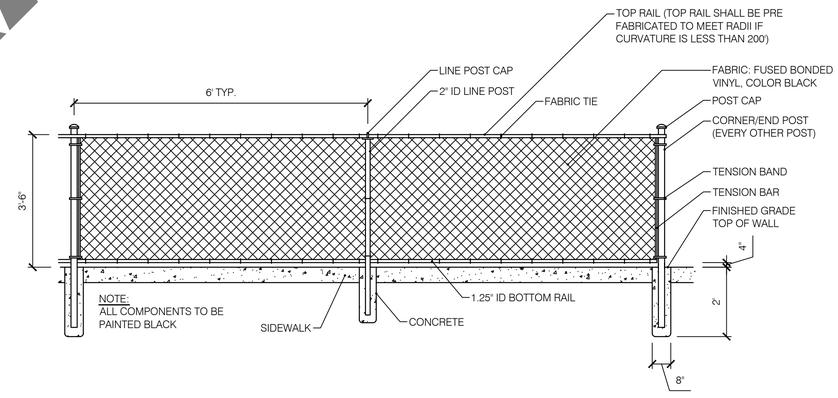
1 BIKE RACK
SCALE: 1 1/2" = 1'-0"



2 HAND RAIL
SCALE: 1" = 1'-0"



3 CONCRETE STAIR
SCALE: 1" = 1'-0"



5 VINYL COATED CHAIN LINK FENCE
SCALE: 1/2" = 1'-0"

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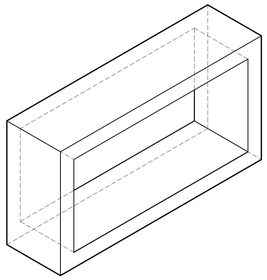
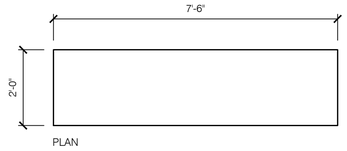
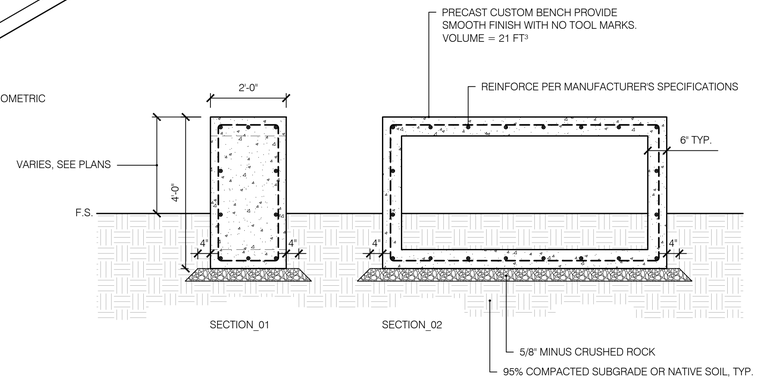
DRAWING NO.
LD-02



ILLUSTRATIVE AXONOMETRIC

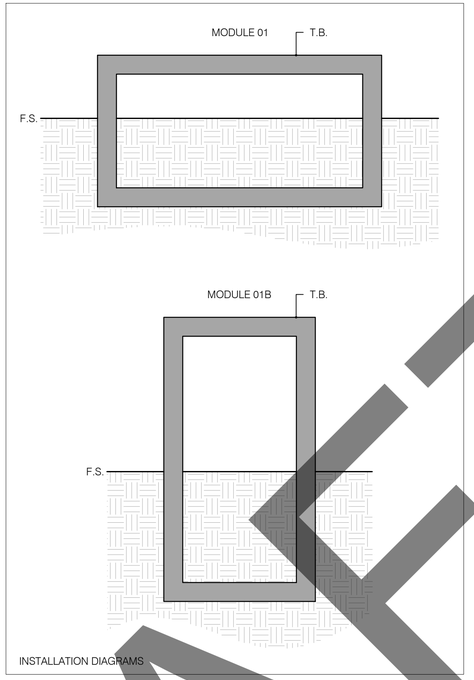


PLAN

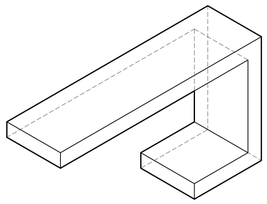


1 BENCH - MODULE 01

SCALE: 1/2" = 1'-0"



INSTALLATION DIAGRAMS



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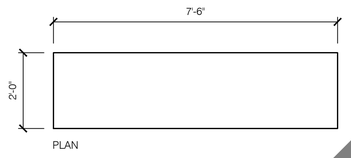
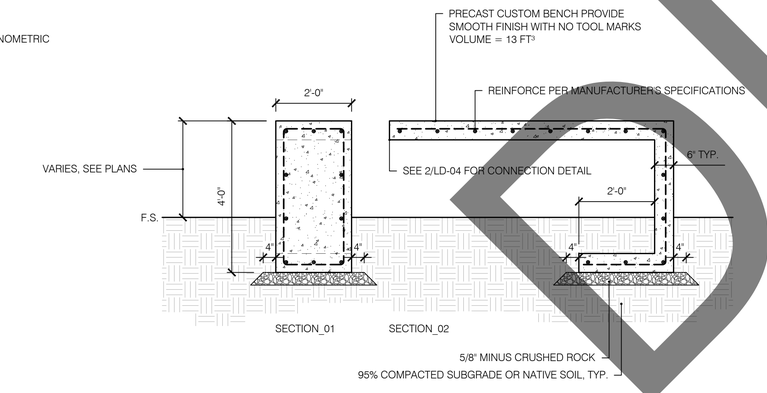
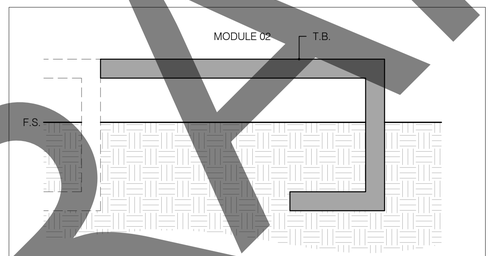


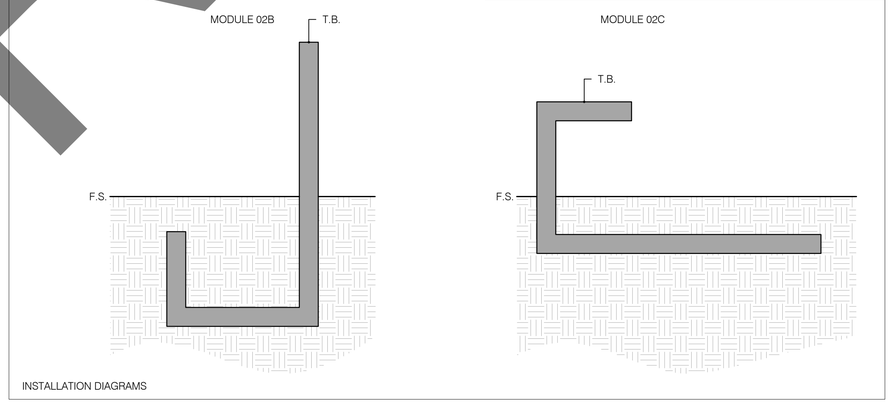
PLAN



2 BENCH - MODULE 02

SCALE: 1/2" = 1'-0"





INSTALLATION DIAGRAMS

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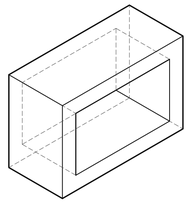
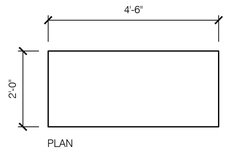
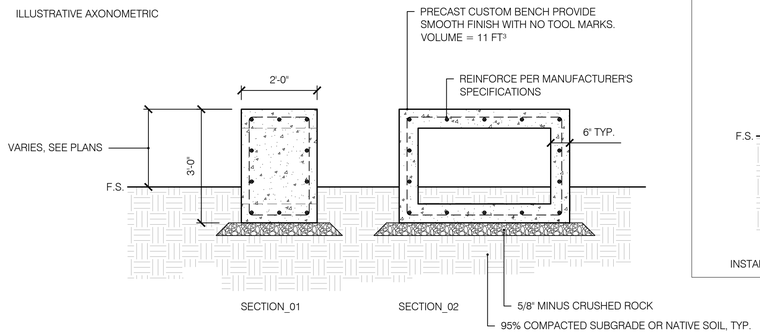
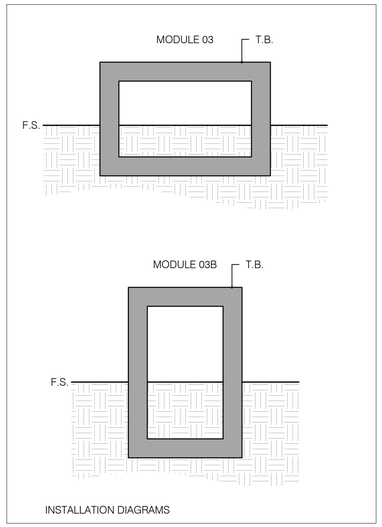


ILLUSTRATIVE AXONOMETRIC



PLAN

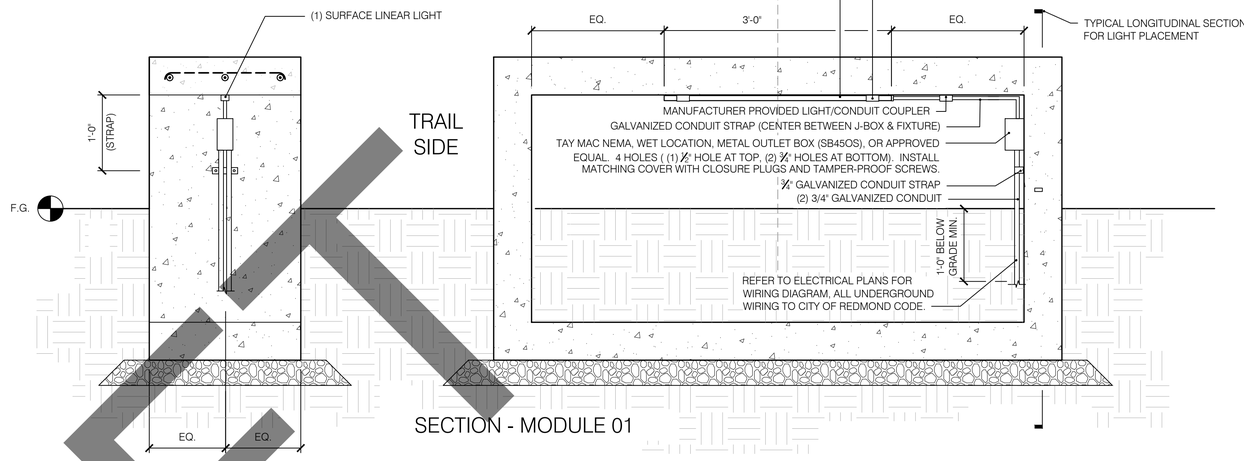




INSTALLATION DIAGRAMS

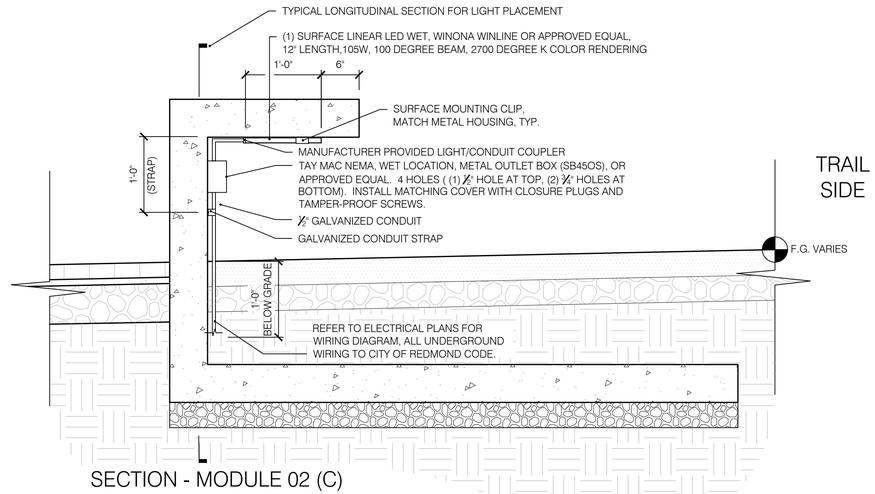
1 BENCH - MODULE 03

SCALE: 1/2" = 1'-0"



SECTION - MODULE 01

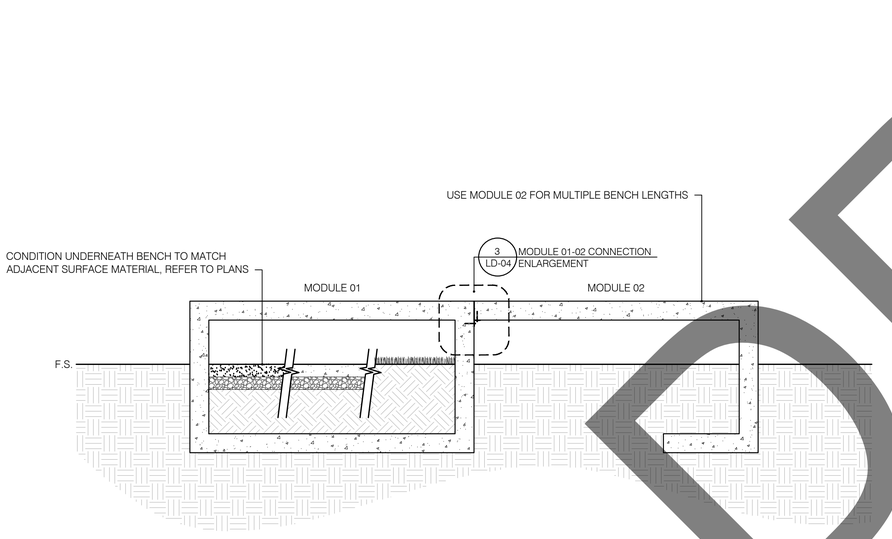
TYPICAL LONGITUDINAL SECTION FOR LINEAR LIGHT PLACEMENT



SECTION - MODULE 02 (C)

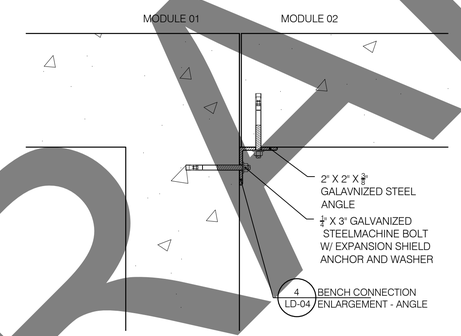
5 LED LIGHT FIXTURE ATTACHMENT

SCALE: 1" = 1'-0"



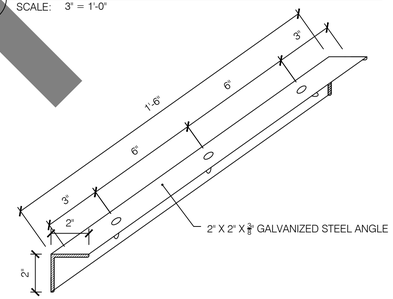
2 MODULE 01-02 CONNECTION

SCALE: 1/2" = 1'-0"



3 MODULE 01-02 CONNECTION ENLARGEMENT

SCALE: 3" = 1'-0"



4 BENCH CONNECTION ENLARGEMENT - ANGLE

SCALE: 3" = 1'-0"

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SHEET: 12 OF: 14

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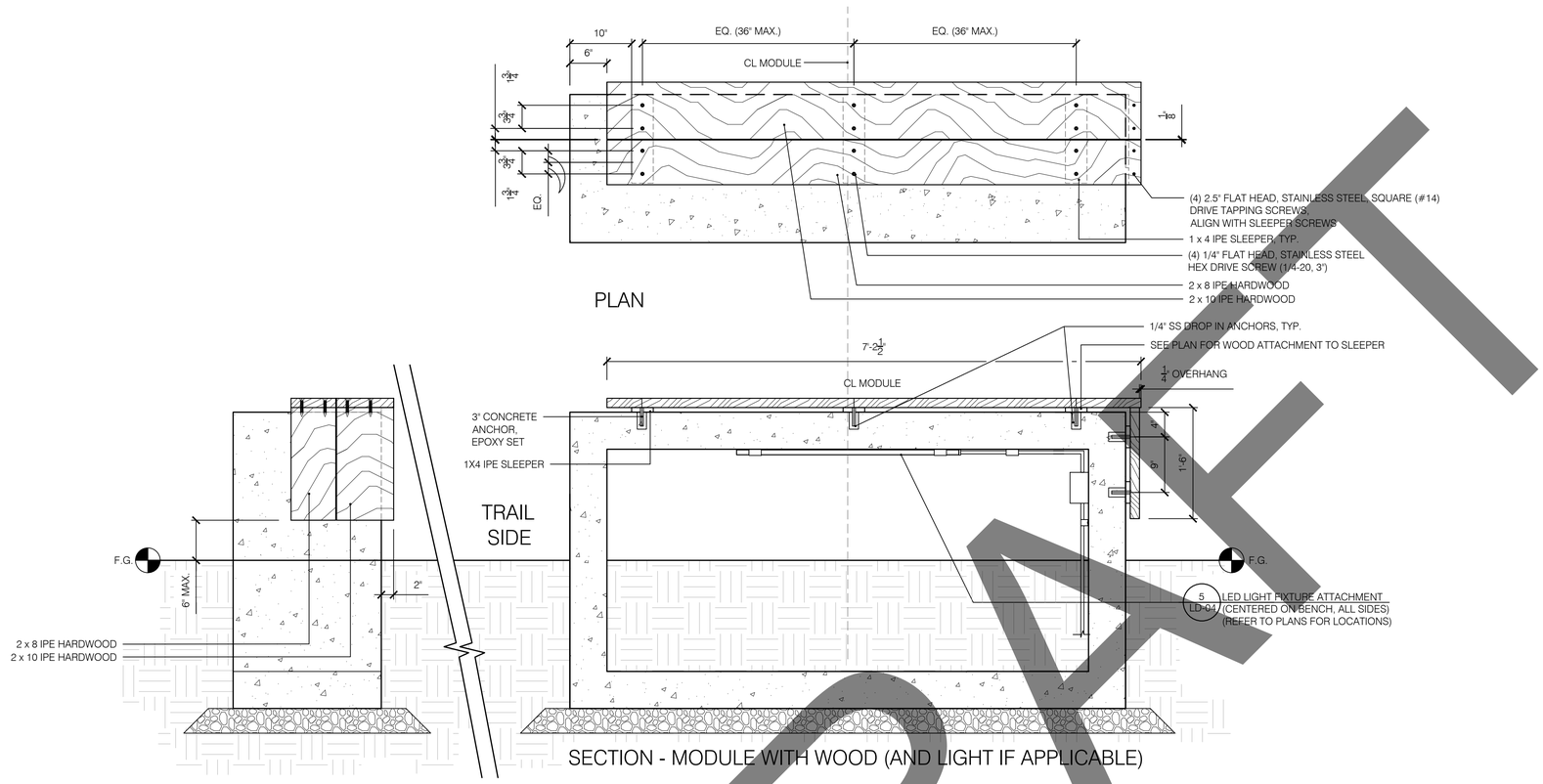

1 WOOD BENCH CLADDING
SCALE: 1" = 1'-0"

BENCH AND LIGHTING NOTES:

1. SUBMIT SHOP DRAWINGS FOR BENCH AND LIGHTING DETAILS PRIOR TO MOCK UP. MOCK-UP OF ONE BENCH FOR APPROVAL PRIOR TO COMPLETE INSTALLATION. SHOP DRAWINGS SHALL SHOW FINAL LAYOUT OF ALL BENCH APPLICATIONS, LIGHTING APPLICATIONS, AND BENCH "WRAP" APPLICATIONS WITH DIMENSIONS, MATERIALS, HARDWARE, AND WOOD END SEALANT.
2. SUBMIT MATERIAL APPROVAL FOR WITH SHOP DRAWINGS FOR:
   - 2.1. IPE WOOD ELEMENTS AND FSC CERTIFICATION
   - 2.2. LIGHT FIXTURE
   - 2.3. ELECTRICAL BOXES ABOVE GRADE
   - 2.4. ALL FASTENERS AND HARDWARE (LIGHTING AND WOOD)
   - 2.5. ALL ELECTRICAL EQUIPMENT, TRANSFORMER, ETC.
3. END GRAIN AND BOARD CUPPING PLACEMENT SHALL BE DONE TO REDUCE VISUAL IMPACT OF WARPING (FACE DOWN).
4. ALL HARDWARE TO BE STAINLESS STEEL / SQUARE DRIVE OR TAMPER PROOF.
5. ALL IPE SCREW / FASTENING TO BE PRE-DRILLED AND COUNTERSUNK FLUSH.
6. SEAL AND WAX END OF GRAIN OF IPE WITH NATURAL WAX PER MANUFACTURER'S RECOMMENDATIONS WITHIN 4 HOURS OF CUT AND EXPOSURE OF END GRAIN.
7. ALL WOOD SURFACES SHALL BE SANDED SMOOTH TO REMOVE ROUGH SURFACES, CLEAR OF SPLINTERS, CRACKS, OR DEFORMATIONS IN WOOD.
8. ALL WOOD NOT DIMENSIONED ON PLAN ARE NOMINAL IN SIZE. REQUEST CLARIFICATION IF NEEDED.
9. ALL IPE HARDWOOD SHALL BE FSC CERTIFIED WITH PROPER CHAIN-OF-HANDLING SUBMITTAL PROVIDED
10. STANDARD PROJECT SKATESTOPS SHALL BE USED, NO SPECIAL SKATESTOP FOR THE WOOD BENCH, INSTALL PER DETAIL, LOCATION DETERMINED BY LANDSCAPE ARCHITECT PER SPECIFICATIONS

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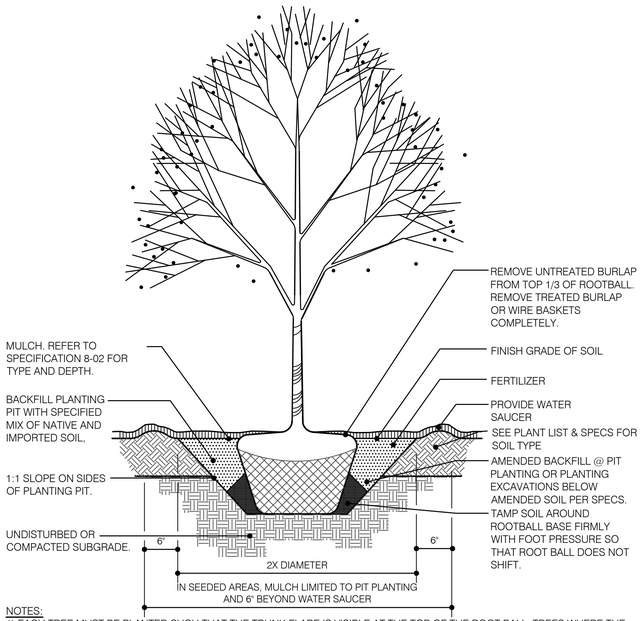
DRAWING NO.
LD-05

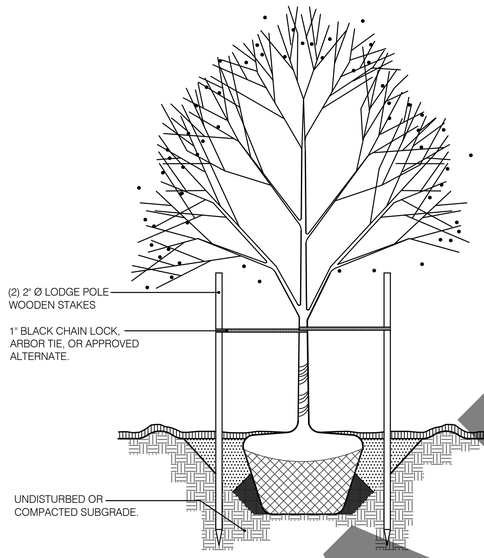


NOTES:
1) EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE WILL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.

2) DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY UPON APPROVAL OF ENGINEER/LANDSCAPE ARCHITECT. CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

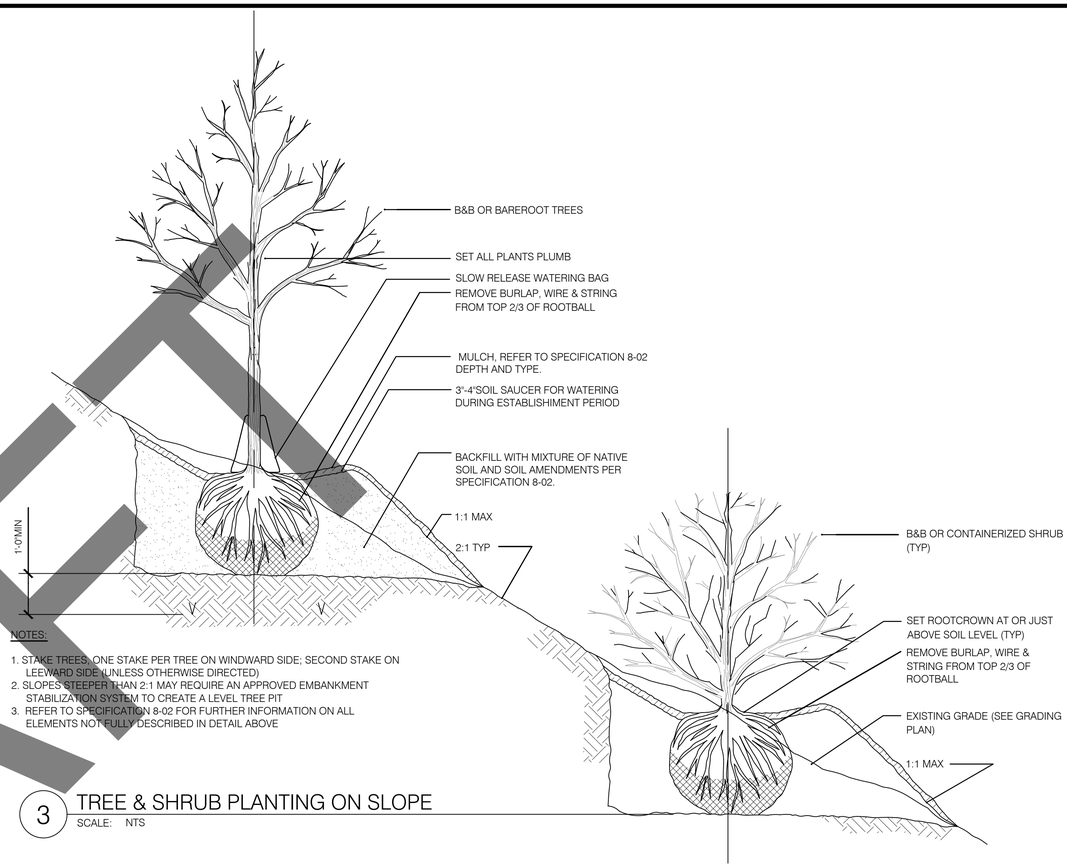
3. REFER TO SPECIFICATION 8-02 FOR FURTHER INFORMATION ON ALL ELEMENTS NOT FULLY DESCRIBED IN DETAIL ABOVE

1 TREE PLANTING
SCALE: NTS



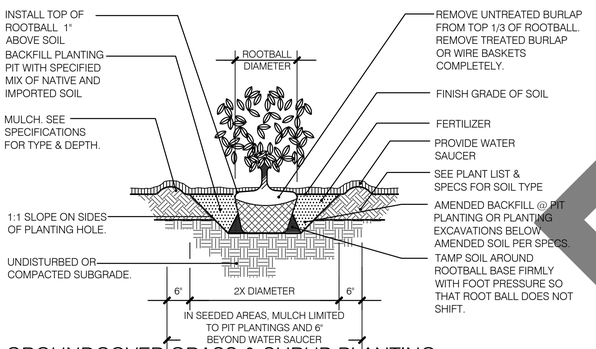
NOTES:
1) STAKE TREES 1-1/2" OR GREATER CALIPER, OR MULTI-STEM TALLER THAN 8'.
2) WHERE TREES OCCUR IN LAWN AREAS, PROVIDE A 6' DIAMETER MULCH RING.
3) REFER TO SPECIFICATION 8-02 FOR FURTHER INFORMATION ON ALL ELEMENTS NOT FULLY DESCRIBED IN DETAIL ABOVE

2 TREE STAKING
SCALE: NTS



NOTES:
1. STAKE TREES: ONE STAKE PER TREE ON WINDWARD SIDE; SECOND STAKE ON LEEWARD SIDE (UNLESS OTHERWISE DIRECTED)
2. SLOPES STEEPER THAN 2:1 MAY REQUIRE AN APPROVED EMBANKMENT STABILIZATION SYSTEM TO CREATE A LEVEL TREE PIT
3. REFER TO SPECIFICATION 8-02 FOR FURTHER INFORMATION ON ALL ELEMENTS NOT FULLY DESCRIBED IN DETAIL ABOVE

3 TREE & SHRUB PLANTING ON SLOPE
SCALE: NTS



4 GROUNDCOVER GRASS & SHRUB PLANTING
SCALE: NTS

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LD–06

Vicinity Map

Property Information

Tax Parcel Number	112505-9146
Legal Description	PCL 1 REDMOND BLA #L080129 REC #20080807900001 SD BLA BEING LOTS 1 THRU 4 BLOCK 1 TOWN OF REDMOND ADD TGW POR BN FORMERLY NP RR R/W OVER E 1/2 OF NE 1/4 OF NE 1/4 STR 11-25-05

Sheet List Table

Sheet Number	Sheet Title
L0.0	COVER SHEET
L1.0	SITE PLAN
L2.0	GRADING PLAN
L3.1	DETAILS
L3.2	DETAILS
L4.0	PLANTING PLAN
L5.5	IRRIGATION PLAN
C1.0	STORMWATER POLLUTION PREVENTION PLAN

NOT INCLUDED THIS DRAFT SET

Contacts

Name	Role	Organization	Phone	Email
Guy Michaelsen	Landscape Architect	Berger Partnership	(206) 325-6877	guym@bergerpartnership.com
Matt Martenson	Landscape Architect Project Manager	Berger Partnership	(206) 325-6877	mattm@bergerparnership.com
Dave Tuchek	Park Operations Manager / Owner Construction Contact	City of Redmond	(425) 556-2318	dtuchek@redmond.gov
Laurie Pfarr	Civil Engineer	LPD Engineering	(206) 725-1211	info@lpdengineering.com

APPROVED FOR CONSTRUCTION

Linda E. De Boldt, P.E.
Director of Public Works
City of Redmond

Date: _____

Plan Chk Engr: _____
Storm: _____
Utility: _____
Fire: _____
Trans / Engr: _____
Planning: _____

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206 325 6877
bergerpartnership.com

City of Redmond WASHINGTON

Gilman Landing
City of Redmond
Leary Way & NE 176th

STATE OF WASHINGTON
LICENSED
LANDSCAPE ARCHITECT

GUY MICHAELSEN

LICENSE NO. 730
EXPIRES ON: 2/12/2016

SET TYPE:
Permit

SET ISSUE DATE:
3/29/2016

REVISIONS:

DRAWN/CHECKED:
MM/GM

SHEET NAME:
COVER SHEET

SHEET NUMBER:
L0.0

Berger Partnership Project Number: XXXXXXX.XX Printed: 03.29.2016 12:21 PM By: Matt Martenson Filename: G:\1project\redmond central connector - small scale projects\gilman landing\drawings\bases\cc-gilman landing-base.dwg

LEARY WAY

NE 76TH ST

4 L3.1 BENCH MODULE TYPE 1 (4 TOTAL)

1 L3.1 C.I.P. CONC. BAND - FLUSH

1 L3.2 HIGH CHAIR

2 L3.1 CRUSHED ROCK PAVING

3 L3.1 REMOVEABLE BOLLRD

4 L3.1 BENCH MODULE TYPE 1B (5 TOTAL)

2'-0" TYP.

APPROX. 60'-10"

2'-0"

APPROX. 33'-5"

PROPERTY LINE

DEMO 10 LF CURB TO ACCOMMODATE PROPOSED WORK

PROJECTSITE LIMITS. 9,923 SF TOTAL PROJECT AREA

PROPERTY LINE

EX. UTILS. TO REMAIN

ALIGN, TYP.

PROPERTY LINE

EX. PAV. TO REMAIN

EXISTING PAVING (FLUSH TIE & BENCH MODULE), TYP. ALIGN HORIZONTAL GEOMETRY W/ EXISTING AS SHOWN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 inch = 10 ft.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
(800)424-5555
CALL TWO BUSINESS DAYS BEFORE YOU DIG

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MM/GM

SHEET NAME:
SITE PLAN

SHEET NUMBER:
L1.0

Berger Partnership Project Number: XXXXXXX.XX Plotted: 03.29.2016 12:21 PM By: Matt Martenson File name: g:\project\redmond central connector - small scale projects\gilman landing\drawings\bases\rcc-gilman landing-base.dwg

GRADING NOTES:
1. EXISTING GRADES (EX.) SHOWN HEREIN ARE BASED ON RCC I RECORD DRAWINGS & CENTER POINTE (ELAN) RECORD DRAWINGS.
2. A DISCREPANCY BETWEEN THE RECORD DRAWINGS OF 3'-0" HAS BEEN NOTED. ELAN GRADE NUMBERS ARE 3'-0" LOWER THAN RCC I GRADE NUMBERS. THIS DISCREPANCY HAS BEEN MITIGATED IN THE PROPOSED GRADES HERE BY ADJUSTING THE ELAN EX. GRADES BY +3'-0"
3. ALL PROPOSED GRADES SHOWN HEREIN ARE RELATIVE TO ADJACENT EX. GRADES.
4. ALL NEW PAVED SURFACES TO HAVE MIN. 1.0% SLOPE TOWARDS SWALES/LOW POINTS. ALL PLANTED AREAS AND LAWN TO SLOPE TOWARDS SWALES/LOW POINTS.
5. BUILDER TO ADJUST GRADES IN FIELD TO PROMOTE DRAINAGE INTENT SHOWN HEREIN.

LEARY WAY

NE 76TH ST

EX. GRADE ALONG THIS PROPERTY LINE ASSUMED 44.00

SHALLOW SWALE (~3") TO DIRECT RUNOFF TO SWALE AS SHOWN

CENTERLINE OF APPROX. 1'-6" DEEP SWALE TO CAPTURE CRUSHED ROCK PAVING RUNOFF

CENTERLINE OF APPROX. 1'-0" DEEP SWALE TO CAPTURE LAWN RUNOFF

THIS TIE TO HAVE 1" DEEP SWALE DOWN CENTER TO DIRECT RUNOFF AS SHOWN

12" DEPTH RIPRAP

MEET/MATCH EX. PAVING GRADE

SLOPE LAWN FROM PAV. TO SWALE

SLOPE LAWN TO LOW POINT

LOW POINTS TO CAPTURE RUNOFF FROM PATHWAY AND LAWN

FLUSH, TYP.

MEET/MATCH EX. SIDEWALK GRADE

1.9%

2.0%

1.0%

EX. 42.94
EX. 42.82
EX. 42.46
EX. 43.00
EX. 43.08
EX. 42.74
EX. 43.33
EX. 44.44
EX. 45.65
EX. 45.62
EX. 44.00
EX. 45.00
EX. 45.31
EX. 45.11

GRAPHIC SCALE
10 0 5 10
(IN FEET)
1 inch = 10 ft.

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SET ISSUE DATE: **3/29/2016**

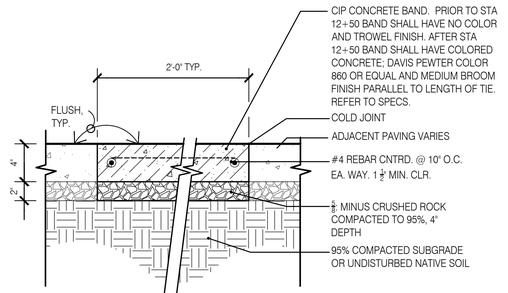
REVISIONS:

DRAWN/CHECKED: **MM/GM**

SHEET NAME: **GRADING PLAN**

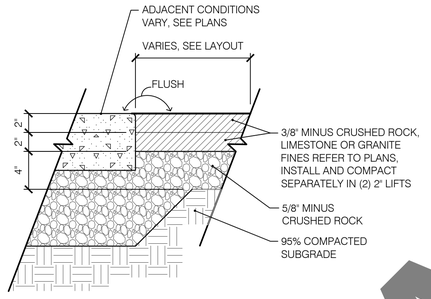
SHEET NUMBER: **L2.0**

Berger Partnership Project Number: XXXXXXX.XX Plotted: 03.29.2016 12:21 PM By: Matt Martenson File name: g:\project\redmond central connector - small scale projects\gilman landing\drawings\bases\rcc-gilman landing-base.dwg



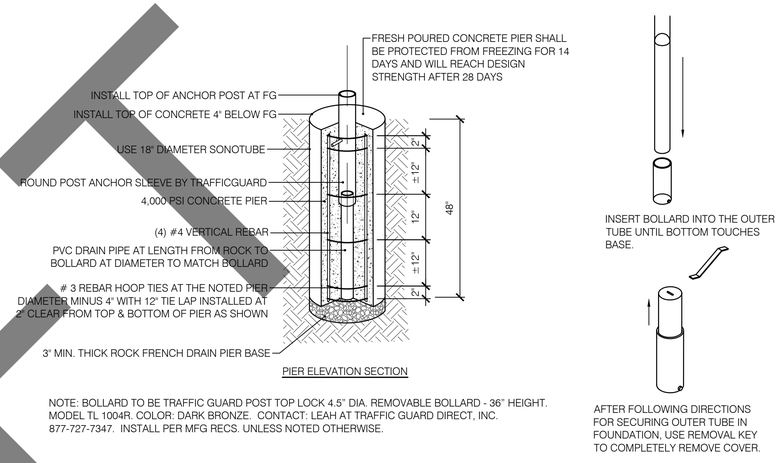
1 C.I.P. CONC. BAND - FLUSH

SCALE: 1 1/2" = 1'-0"



2 CRUSHED ROCK PAVING

SCALE: 1 1/2" = 1'-0"

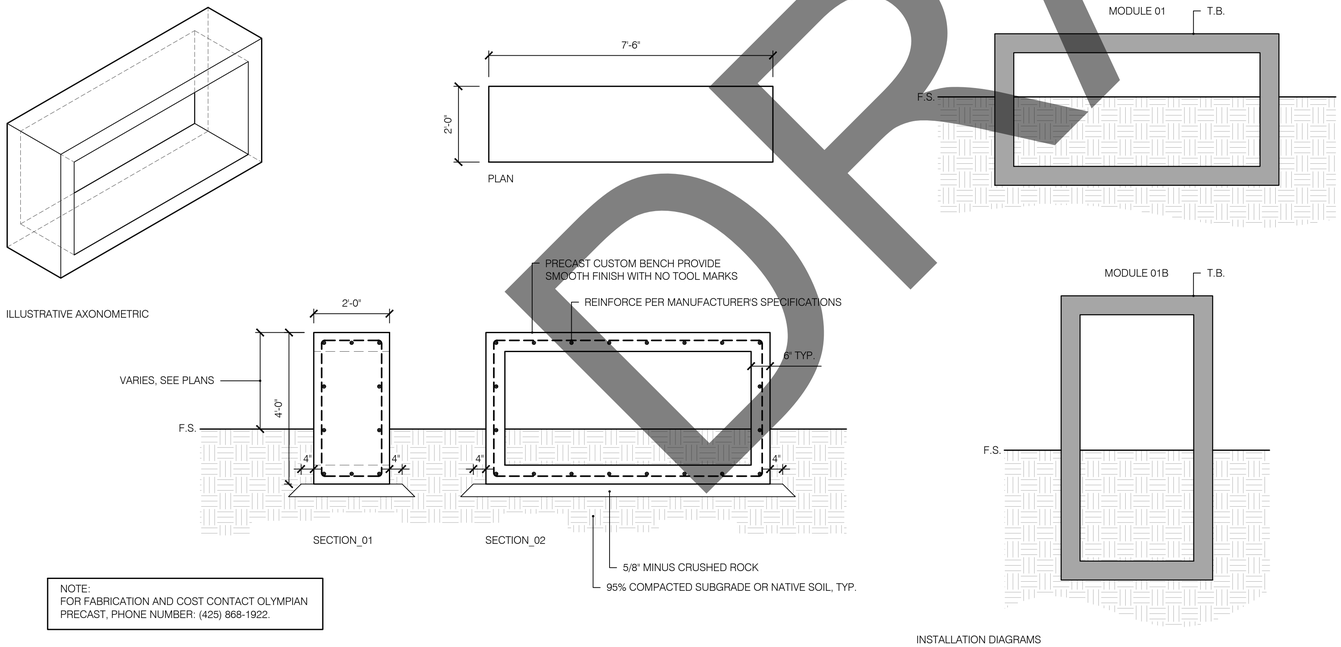


PIER ELEVATION SECTION

NOTE: BOLLARD TO BE TRAFFIC GUARD POST TOP LOCK 4.5" DIA. REMOVABLE BOLLARD - 36" HEIGHT. MODEL TL 1004R. COLOR: DARK BRONZE. CONTACT: LEAH AT TRAFFIC GUARD DIRECT, INC. 877-727-7347. INSTALL PER MFG RECS. UNLESS NOTED OTHERWISE.

3 REMOVEABLE BOLLRD

SCALE: 1" = 1'-0"



NOTE:
FOR FABRICATION AND COST CONTACT OLYMPIAN PRECAST, PHONE NUMBER: (425) 868-1922.

INSTALLATION DIAGRAMS

4 BENCH MODULE TYPE 1

SCALE: 1/2" = 1'-0"

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SHEET NAME:
DETAILS

SHEET NUMBER:
L3.1

GRAPHIC SCALE
10 0 5 10
(IN FEET)
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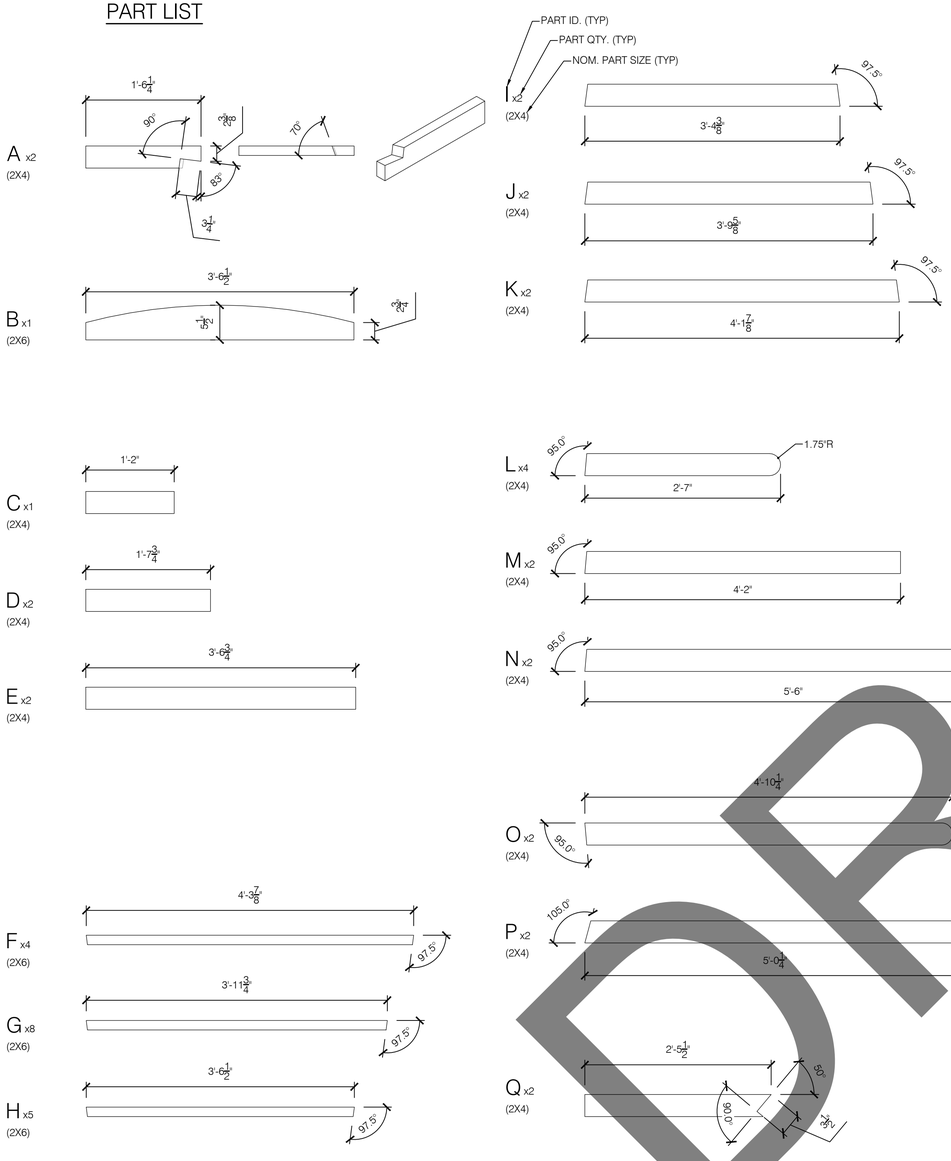
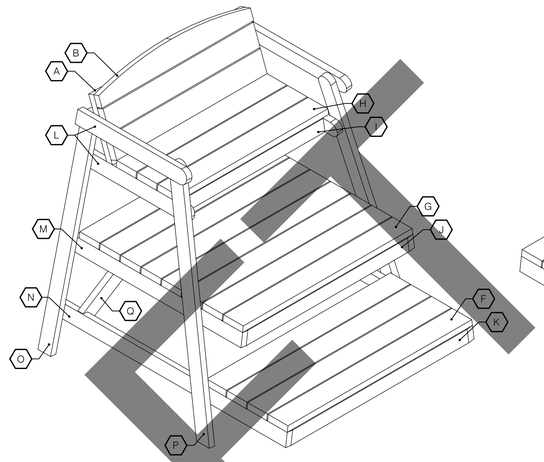
NOTES:

1. 2X4 NOM. (ACTUAL 3.5" x 1.5") & 2X6 NOM. (ACTUAL 5.5" x 1.5" WOOD SPECIES AND GRADE TBD.
2. WOOD FINISH TBD.
3. FASTENERS/NAILS/SCREWS TBD.

PART LIST





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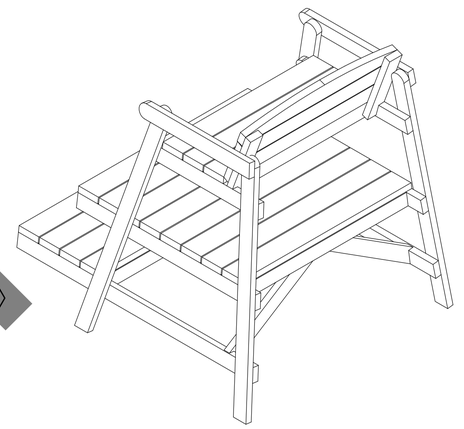
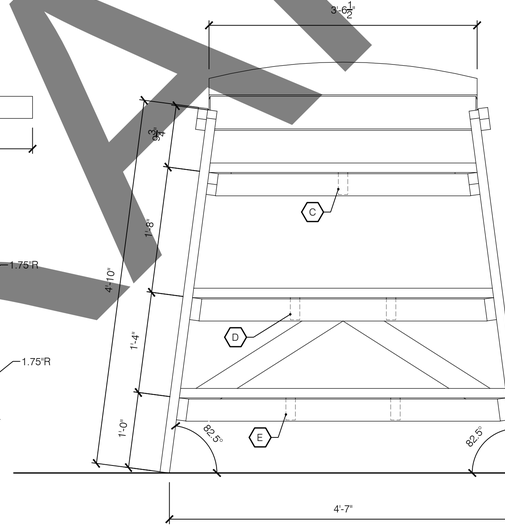
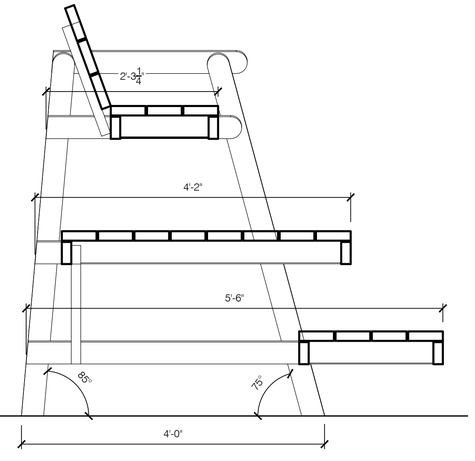


ISO-BACK



FRONT ELEV



SECTION

1 HIGH CHAIR
SCALE: 1" = 1'-0"

GRAPHIC SCALE
10 0 5 10
(IN FEET)
1 inch = 10 ft.

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GUY MICHAELSEN

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SET ISSUE DATE: **3/29/2016**

REVISIONS:

DRAWN/CHECKED: **MM/GM**

SHEET NAME: **DETAILS**

SHEET NUMBER: **L3.2**

Berger Partnership Project Number: XXXXXXX.XX Plotted: 03.29.2016 12:21 PM By: Matt Martenson Filename: G:\1project\redmond central connector - small scale projects\gilman landing\drawings\bases\rcc-gilman landing-base.dwg

PLANT LIST

QTY	LATIN NAME / COMMON NAME	SIZE
53	ACER CIRCINATUM / VINE MAPLE 3 STEM MIN.	5-6' HT.
29	CORNUS SANGUINEA 'CATO' / ARCTIC SUN DOGWOOD	1 GAL.
25	HELICTOTRICHON SEMPERVIRENS / BLUE OAT GRASS	1 GAL.
44	JUNCUS EFFUSUS / COMMON RUSH	4" POT
14	LAVANDULA X INTERMEDIA 'FRED BUTIN' / ENGLISH LAVENDER	1 GAL.
79	LONICERA PILEATA / PRIVET HONEYSUCKLE	1 GAL.
41	MOLINIA CAERULEA / PURPLE MOOR GRASS	1 GAL.
45	PENNISETUM ALOPECUROIDES 'HAMELN' / DWARF FOUNTAIN GRASS	1 GAL.
43	RUDBECKIA HIRTA / BLACK EYED SUSAN	1 GAL.
46	SALIX X PURPUREA 'NANA' / DWARF ARCTIC WILLOW	2 GAL.
3	THUJA PLICATA 'EXCELSA' / EXCELSA CEDAR	6-8' HT.

PLANTING AND SOIL PREPARATION NOTES:
1. ALL PLANTING AREAS TO RECEIVE 12" DEPTH TOPSOIL & 3" DEPTH MULCH
2. ALL LAWN AREAS TO RECEIVE 12" DEPTH TOPSOIL
3. PLANTING AND LAWN AREAS SHALL BE PREPARED AS FOLLOWS:
   - 3.1. ROUGH GRADE SITE TO ACHIEVE SUBGRADE DEPTHS. SUBGRADE DEPTHS ARE -1'-3" FOR PLANTING AREAS AND -1'-0" FOR LAWN AREAS.
   - 3.2. ROTOTILL PLANTING AREA AND LAWN AREA SUBGRADE TO A 12" TO 18" DEPTH TO RESTORE SOIL PERCOLATION AND FUNCTION.
   - 3.3. PLACE HALF (6") DEPTH TOPSOIL AND ROTOTILL TO 9" TO 12" DEPTH.
   - 3.4. PLACE REMAINING TOPSOIL.
   - 3.5. PLACE 3" DEPTH MULCH IN PLANTING AREAS AFTER PLANTING.
4. ALL LAWN AND PLANTING AREAS SHALL RECIEVE FULLY AUTOMATIC IRRIGATION (REFER TO IRRIGATION PLAN)

6-8' HT. | THUJA PLICATA 'EXCELSA' | EXCELSA CEDAR
1 GAL. | ACER CIRCINATUM | 5' O.C. | VINE MAPLE
1 GAL. | MOLINIA CAERULEA | 2' O.C. | PURPLE MOOR GRASS
1 GAL. | CORNUS SANGUINEA 'CATO' | 30" O.C. | ARCTIC SUN DOGWOOD
1 GAL. | HELICTOTRICHON SEMPERVIRENS | 2' O.C. | BLUE OAT GRASS
1 GAL. | LAVANDULA X INTERMEDIA 'FRED BOUTIN' | 2' O.C. | ENGLISH LAVENDER
1 GAL. | RUDBECKIA HIRTA | 2' O.C. | BLACK EYED SUSAN
1 GAL. | PENNISETUM ALOPECUROIDES 'HAMELN' | 2' O.C. | DWARF FOUNTAIN GRASS
1 GAL. | LONICERA PILEATA | 30" O.C. | PRIVET HONEYSUCKLE
2 GAL. | SALIX X PURPUREA 'NANA' | 4' O.C. | DWARF ARCTIC WILLOW
4" POT | JUNCUS EFFUSUS | 2' O.C. | COMMON RUSH

LAWN, TYP.
APPROXIMATE LIMIT OF EXISTING PLANTING

LEARY WAY
NE 76TH ST

GRAPHIC SCALE
10 0 5 10
(IN FEET)
1 inch = 10 ft.

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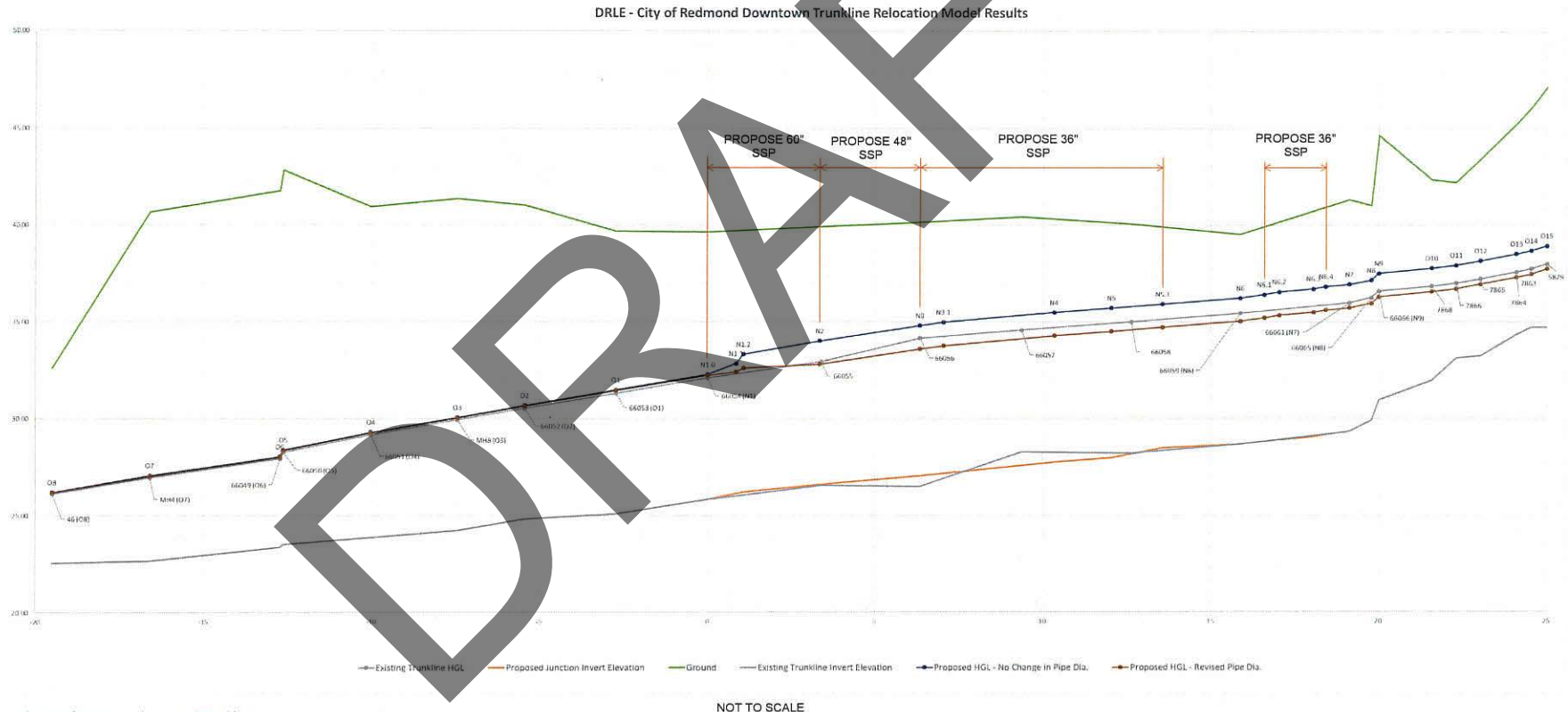
REVISIONS:

DRAWN/CHECKED:
MM/GM

SHEET NAME:
PLANTING PLAN

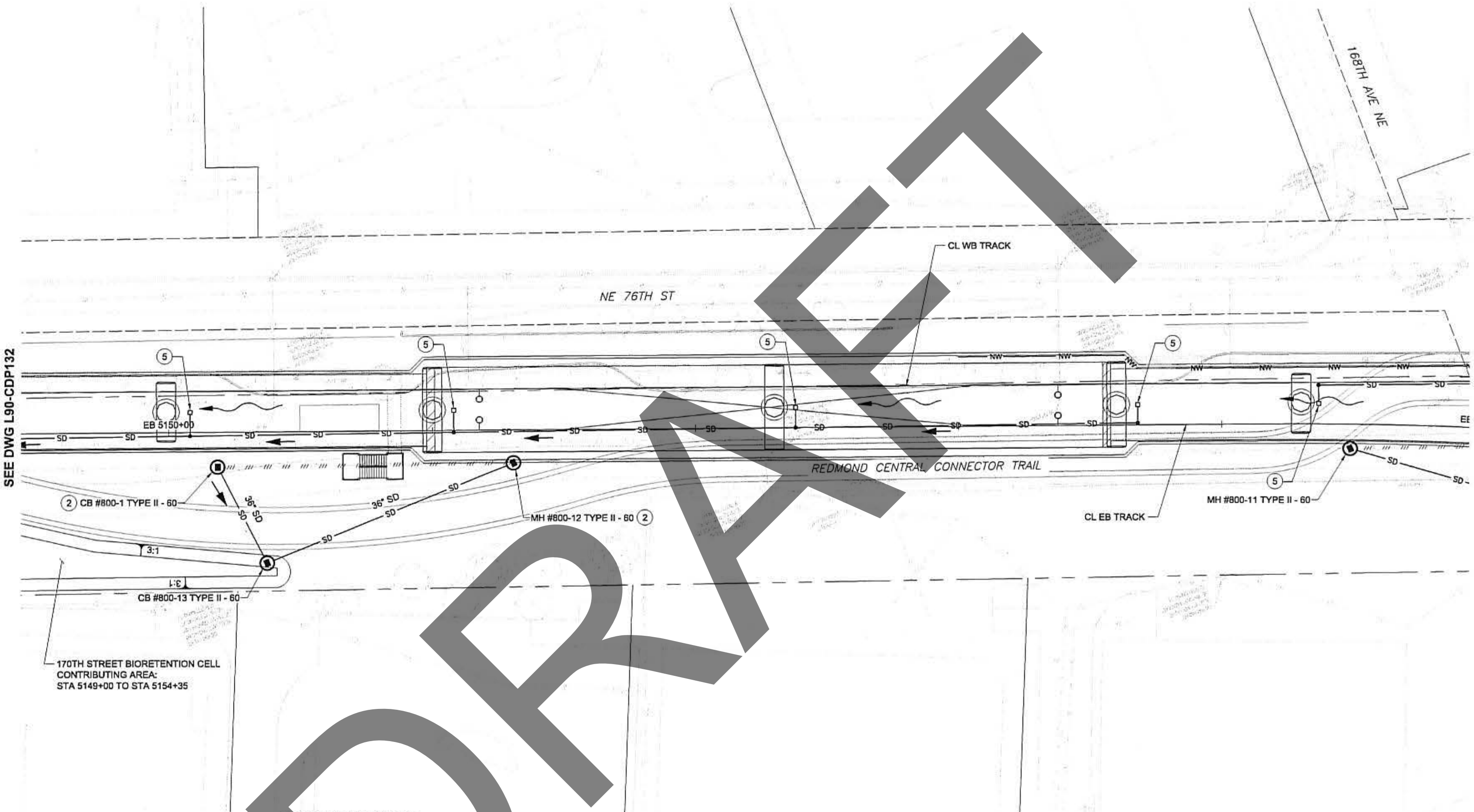
SHEET NUMBER:
L4.0

Berger Partnership Project Number: XXXXXXX.XX Printed: 03.29.2016 12:21 PM By: Matt Martenson Filename: g:\1project\redmond central connector - small scale projects\gilman landing\drawings\bases\rcc-gilman landing-base.dwg



NOT TO SCALE

Figure 1. Hydraulic Grade Line of Existing and Proposed Trunkline



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

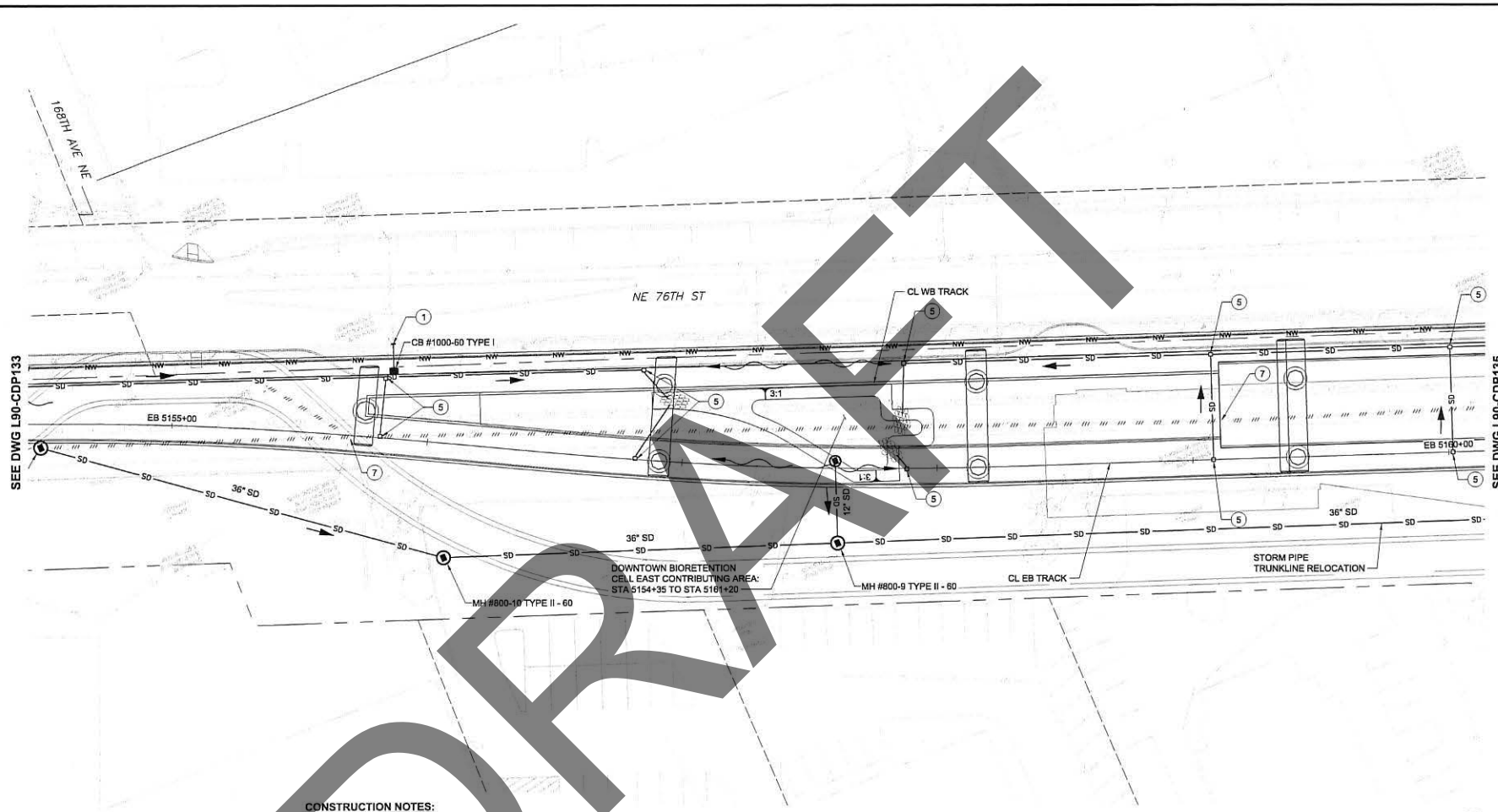
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5150+00 TO EB STA 5155+00

DRAWING No.: L90-CDP133
LOCATION ID:
SHEET No.: 209
REV:

09/25/18 | 3:52 PM | TYLERJ



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING | NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 24004 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5155+00 TO EB STA 5160+00

DRAWING No.: L90-CDP134
LOCATION ID:
SHEET No.: 210
REV:

Refs:
RLE-GB-TB02+34
RLE-L90-SEP100
RLE-L90-CRP100
RLE-L90-DWP100
RLE-L90-KAP100
RLE-E21-ASP100
XE360-RLE-E27-CSP200
XE360-RLE-E27-DWP200
XE360-RLE-E27-WSP200
RLE-L95-VVE
RLE-GS-VTP
RLE-GS-VSF
RLE-GS-VUT
RLE-GS-VVE
RLE-L90-VCP
RLE-L90-VRW
RLE-L90-VSF
RLE-L90-VUT
RLE-L90-VVS
RLE-L95-VSF
RLE-L95-VUT
RLE-E29-LPP100
RLE-L90-VCN
RLE-L95-VCN
RLE-L90-CWP100
RLE-L90-CDP100
RLE-E29-ASP100

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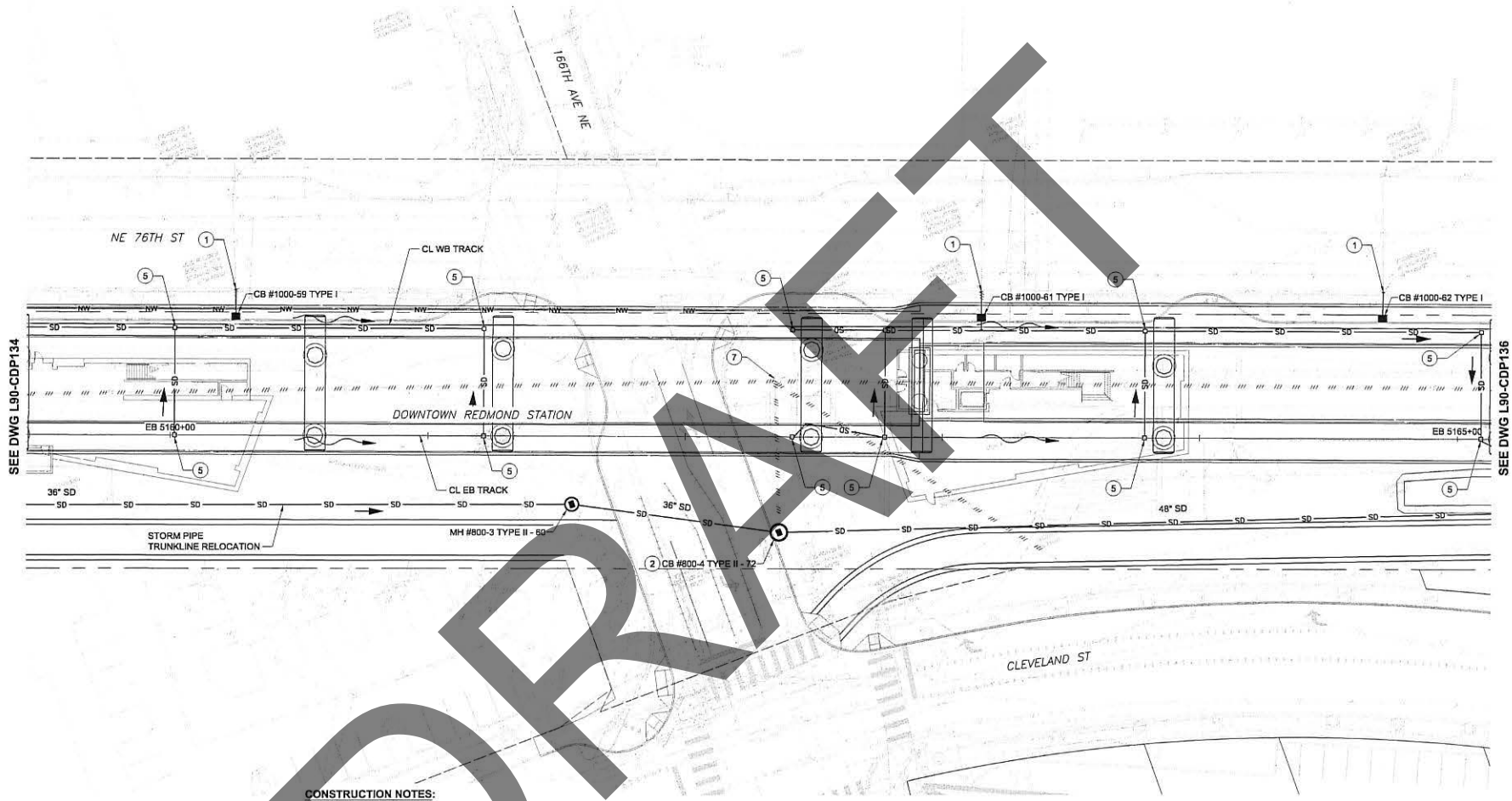


CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING | NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

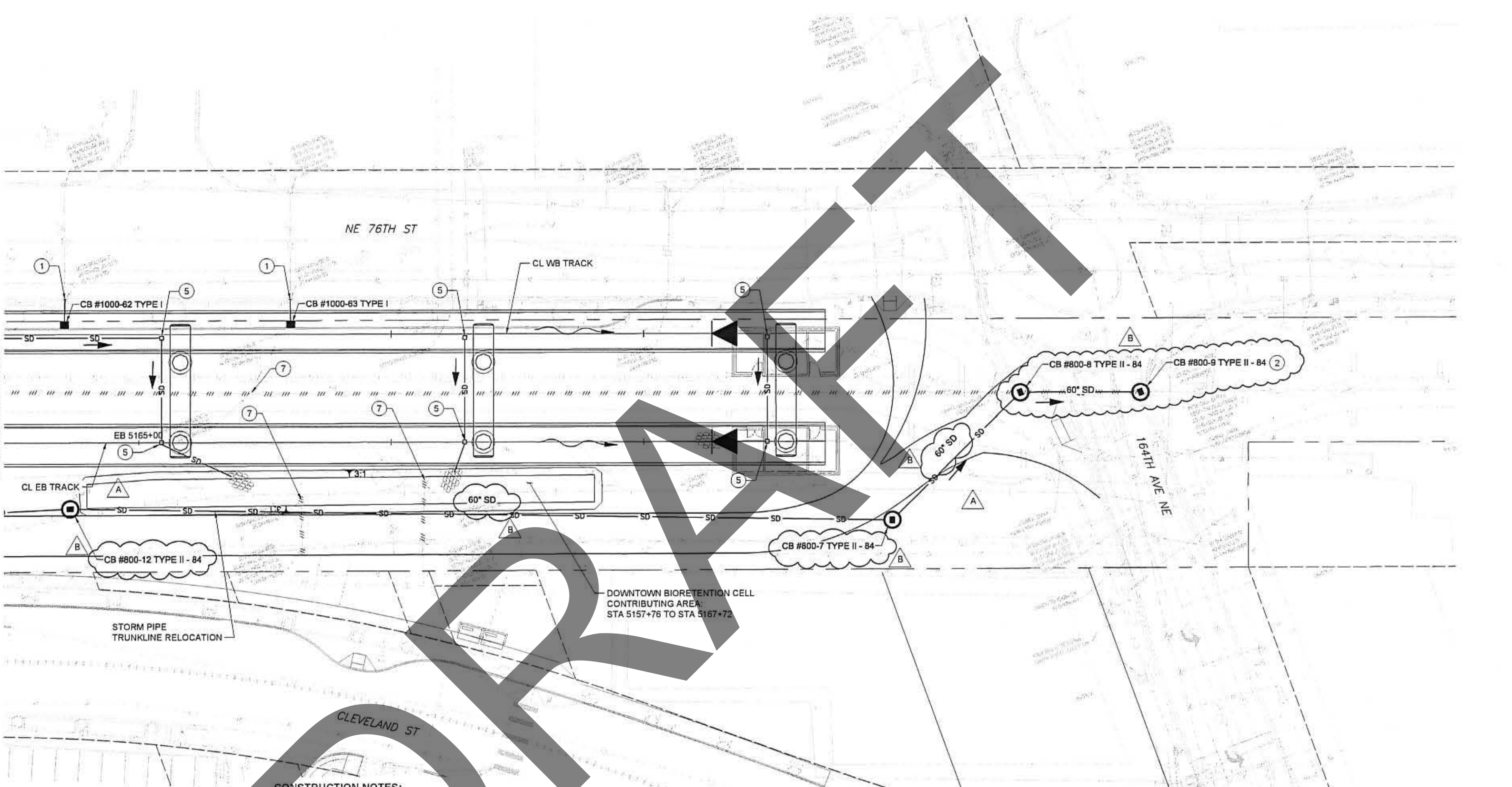
LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5160+00 TO EB STA 5165+00

DRAWING No.: L90-CDP135
LOCATION ID:
SHEET No.: 211
REV:



CONSTRUCTION NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

No.	DATE	DSN	CHK	APP	REVISION
A	02/01/19	MMS	BFP	BFP	ADDENDUM #6 - REVISION FOR TPSS #3
B	03/08/19	MMS	BFP	BFP	ADDENDUM #11 - STORM SIZES REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

BRAD FREDERICK PHILLIPS — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — 33760

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5165+00 TO EB STA 5167+72

DRAWING No.: L90-CDP136
LOCATION ID:
SHEET No.: 212
REV: B

SOUNDTRANSIT

November 8th, 2018

Todd Short, Fire Marshal
Redmond Fire Department, Fire Prevention Division
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 012 DRLE: Emergency Fire Deparment Access Points

Sound Transit requests concurrence for the following locations dedicated to emergency responder access to the Link Light Rail guideway. Such access will meet or exceed the requirements of the 2017 Edition of NFPA 130, Standard for Fixed Guideway Transit and Passenger Rail Systems.

Code Requirement – NFPA 130

Section 6.4.1.6: Access to the elevated trainway shall be from stations or by mobile ladder equipment from roadways adjacent to the trackway.

Section 6.4.1.7: If no adjacent or crossing roadways exist for the elevated trainway, access roads at a maximum of 2,500-foot intervals shall be required.

Section 6.4.1.8: Where the configuration of an open-cut trainway prevents or impedes access for firefighting, provisions shall be made to permit fire fighter access to that section of trainway at intervals not exceeding 2,500 feet.

Purpose

The purpose of this letter is to seek concurrence from City of Redmond Fire Department for the access locations to be used by Fire Deparment vehicles during emergencies along the DRLE corridor as shown in the attached Emergency Access drawings.

Sound Transit proposes two classes of emergency responder access points. Primary emergency access points onto the guideway will include removable guardrail chains, operable gates or sliding acoustic panels, an Emergency Telephone (ETEL), warning signage and standardized "FD ACCESS" signage. Secondary access points are identified to assist emergency responders with additional access points that may require groundset ladders, aerial ladders or cutting through security fencing for trainway access. NFPA 130 access

requirements are satisfied with the location and spacing of primary access points.

The attached Emergency Access drawings also indicates the extent of fire protection standpipes, locations of fire department connections and new or existing hydrants along the alignment through the Redmond Fire Department jurisdiction.

Fire Department access to all emergency access points is defined in Table 1. Final locations of emergency access points shall be coordinated with fire department connections (FDC) for the fire standpipe.

Table 1: Primary Access Points

No.	Aproximate Location	Station	Access Type
1.	NE 45th Street	5007+93	At grade
2.	NE 51st Street	5023+18	Stairs
3.	NE 60th Street	5045+20	At grade
4.	NE 65th Street	5062+50	Stairs
5.	West Lake Sammamish Parkway	5077+70	Elevated Track Gate
6.	Marymoor Park (From SR520)	5099+80	At grade
7.	SR520 & SR202 interchange*	5131+90	At grade
8.	170th Ave NE	5147+71	Elevated Track Gate

*Daisy chain locking system will be provided at the access gate under SR520

Depending on the actual grade separation of guideway and access point grades, Table 2 provides the requirements for the final access point location details, based on actual field conditions. The final design of all access points is subject to Redmond Fire Department review and approval.

Table 2: Access Point Options

Access Type	Grade Difference	Access Details
At Grade	+/- 5 feet	Provide concrete steps between grades to a level equal with the top of finished trackway grade or top of ballast, provide 44-inch-wide gate in fence or door in noise wall, provide Knox box, provide access point sign.
Stair	Guideway over 5 feet below grade or over 5 feet above grade and at a station of special trackwork	Provide concrete stairs, provide concrete landing space at bottom of stairs large enough to allow fire fighters to be off the stairs before entering the guideway, provide chain across boundary between bottom landing and trainway, provide 44-inch-wide gate in fence or door in noise wall, provide Knox box, provide access point sign.
Elevated track gate	Guideway over 5 feet above adjacent grade	Provide chain gate in elevated guideway safety railing, provide access point sign.

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen
Corridor Design Manager, DRLE

Attachments:
1. Drawings showing Emergency Access Points

Concurrence:

Todd Short / 11/19/18
Date

Todd Short, Fire Marshal
City of Redmond

cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control
Jimmy Lassiter (ST DECM)
Marina Vallejo (ST DECM)
Liz Beigle Bryant (ST SQA)

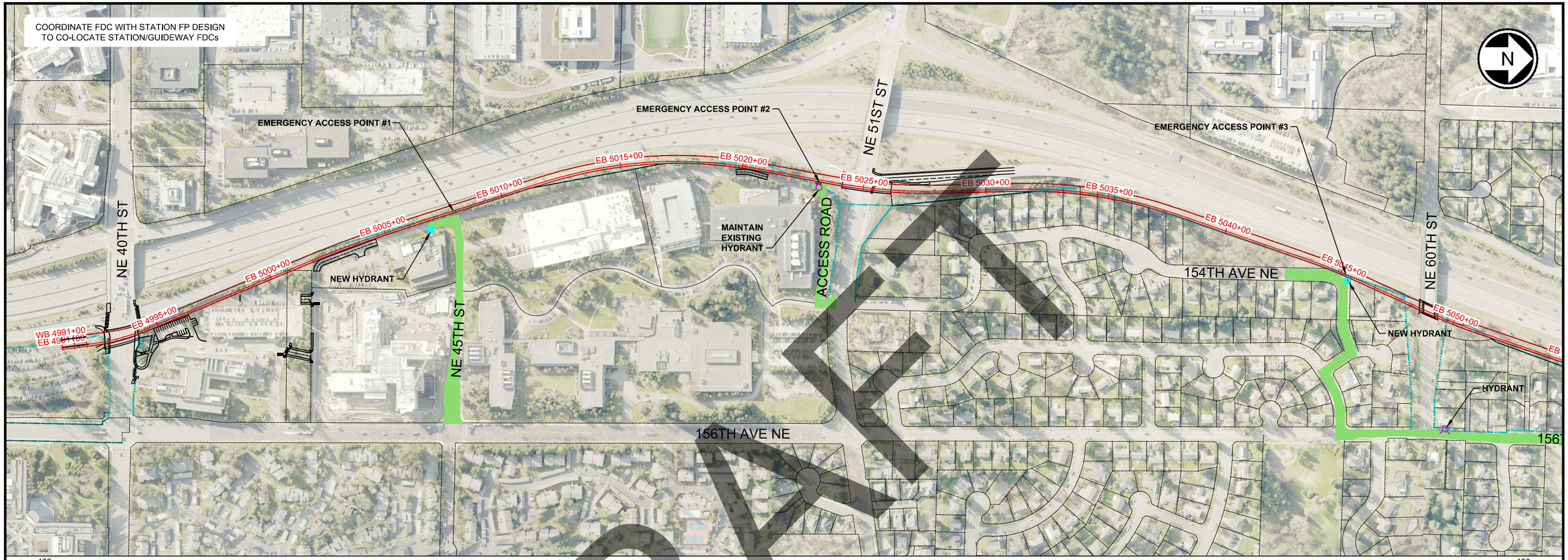
Reflective RED with
Reflective WHITE copy and border

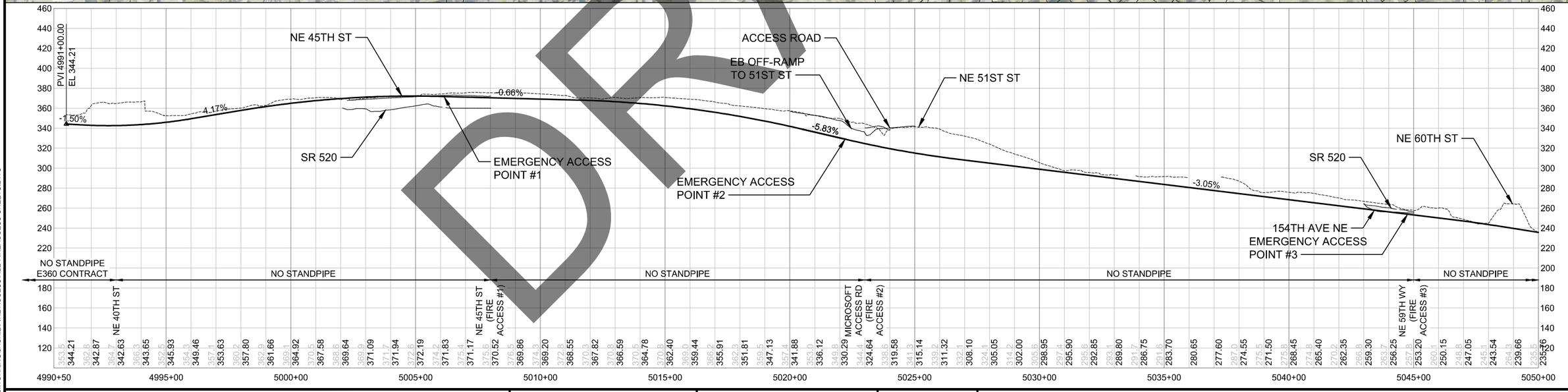
On aluminum sheet, 0.080” minimum thickness

Per WSDOT Standard Specifications 9-28

Xrefs:
xRLE-GIS-VFP
xRLE-L90-KAP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-SEP100
xRLE-P29-APP205
xRLE-E29-ASP100
xRLE-E31-ASP100
xRLE-L90-VRX
xRLE-E31-APP200
xRLE-L90-JEP100
xRLE-aerial-light
xRLE-E29-LPF100
xRLE-L90-UCP100

COORDINATE FDC WITH STATION FP DESIGN
TO CO-LOCATE STATION/GUIDEWAY FDCs





LEGEND

- GUIDEWAY CL
- CUT AND COVER GUIDEWAY
- EXISTING WSDOT RIGHT-OF-WAY
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- ACCESS POINT

200 100 0 200 400
SCALE IN FEET

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SOUNDTRANSIT

DOWNTOWN REDMOND LINK EXTENSION

FIRE ACCESS LOCATIONS

SHEET 1 OF 3

06/20/18 | 4:57 PM | ITOP
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Xrefs:
xRLE-GIS-VFP
xRLE-L90-KAP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-SEP100
xRLE-P29-APP205
xRLE-E29-ASP100
xRLE-E31-ASP100
xRLE-L90-VRX
xRLE-E31-APP200
xRLE-L90-JEP100
xRLE-aerial-light
xRLE-E29-LPF100
xRLE-L90-UCP100

COORDINATE FDC WITH STATION FP DESIGN
TO CO-LOCATE STATION/GUIDEWAY FDCs

EMERGENCY ACCESS POINT #5
EMERGENCY ACCESS POINT #4
FDC FOR GUIDEWAY STANDPIPE
NEW HYDRANT
HYDRANT
TPSS/SH
HYDRANT
NE 60TH ST
PROVIDE FIRE DEPARTMENT ACCESS GATE THROUGH BOTH FENCES
EMERGENCY ACCESS POINT #6
SR 520
MARYMOOR PARK
EB 5050+00
EB 5055+00
EB 5060+00
EB 5065+00
EB 5070+00
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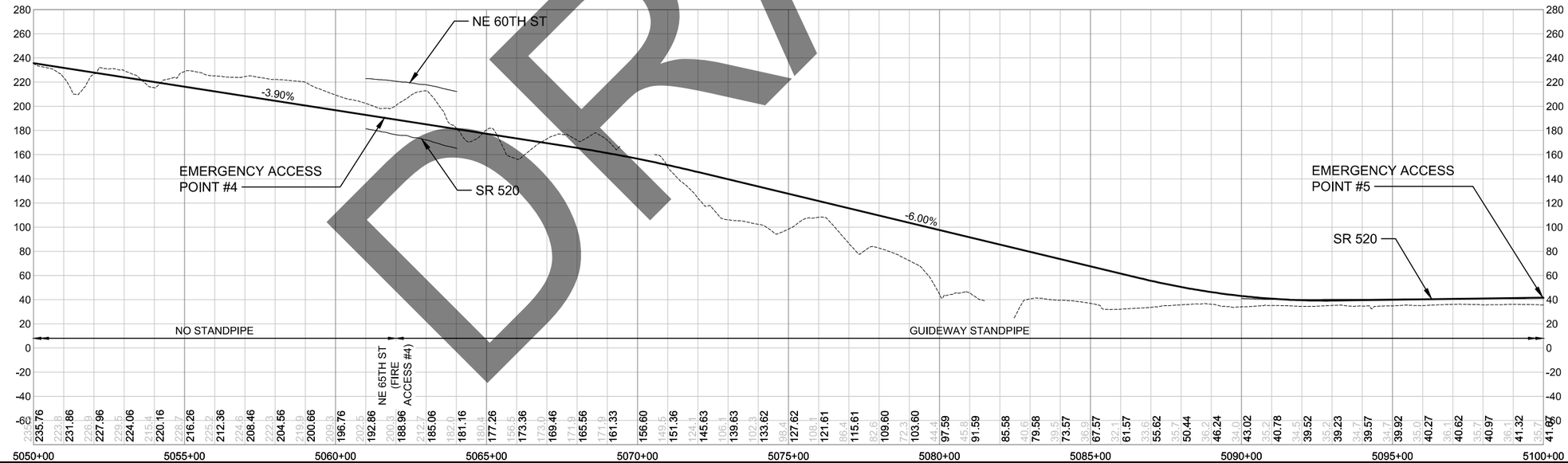
EB 5110+00



LEGEND

- GUIDEWAY CL
- CUT AND COVER GUIDEWAY
- EXISTING WSDOT RIGHT-OF-WAY
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- ACCESS POINT

200 100 0 200 400
SCALE IN FEET

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SOUNDTRANSIT

DOWNTOWN REDMOND LINK EXTENSION

FIRE ACCESS LOCATIONS

SHEET 2 OF 3

06/20/18 | 4:57 PM | ITOP
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Xrefs:
xRLE-GIS-VFP
xRLE-L90-KAP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-SEP100
xRLE-P29-APP205
xRLE-E29-ASP100
xRLE-E31-ASP100
xRLE-L90-VRX
xRLE-E31-APP200
xRLE-L90-JEP100
xRLE-aerial-light
xRLE-E29-LPF100
xRLE-L90-UCP100

COORDINATE FDC WITH STATION FP DESIGN
TO CO-LOCATE STATION/GUIDEWAY FDCs

HYDRANT
FDC
EMERGENCY ACCESS POINT
SE REDMOND STATION
SE REDMOND STATION
FDC
HYDRANT
EB 5120+00
EB 5125+00
EB 5130+00
EB 5106+00
EB 5110+00
EB 5115+00
SR 520
ON RAMP
170TH AVE NE
EB 5135+00
EB 5140+00
EB 5145+00
EB 5150+00
EB 5155+00
EB 5160+00
EB 5165+00
NE 76TH ST
EMERGENCY ACCESS POINT
DOWNTOWN REDMOND STATION
FDC
HYDRANT
DOWNTOWN STATION
FDC
HYDRANT
EMERGENCY ACCESS POINT #7
HYDRANT
EMERGENCY ACCESS POINT #8
SR 202 / REDMOND WAY
N

EMERGENCY ACCESS POINT #6
EMERGENCY ACCESS POINT DOWNTOWN REDMOND STATION
PVI 5167+72.06
EL 69.48
-0.50%
0.50%
-0.50%
3.00%
0.50%
-0.50%
GUIDEWAY STANDPIPE

5110+00 5115+00 5120+00 5125+00 5130+00 5135+00 5140+00 5145+00 5150+00 5155+00 5160+00 5165+00 5168+00

DRAFT

LEGEND
GUIDEWAY CL
CUT AND COVER GUIDEWAY
EXISTING WSDOT RIGHT-OF-WAY
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
PROPOSED FDC
ACCESS POINT

200 100 0 200 400
SCALE IN FEET

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SOUNDTRANSIT

DOWNTOWN REDMOND LINK EXTENSION

FIRE ACCESS LOCATIONS

SHEET 3 OF 3

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SOUNDTRANSIT

January 14th, 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 14 DRLE: Stormwater CFC Charge

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond of Sound Transit's estimate of the maximum amount the Downtown Redmond Link Extension project will be charged for the Stormwater Capital Facilities Charges (CFC). Sound Transit has made the following assumptions to calculate these fees:

- Stormwater CFC fees effective 7/11/2018 (Attachment 1) are used in this calculation. It is assumed that these fees will not be increased before the fees are paid for this project. (There is no guarantee that the City will not increase the fees before they are paid, but if fees are scheduled to be increased, notice will be provided, and fees may be paid early.)
- The areas that may be assessed fees for the Citywide CFC and Downtown CFC are shown on Attachment 2.
    - The guideway area between NE 40th Street and the SE Redmond station area is not subject to the Citywide CFC.
    - Hard surfaces within the contiguous area of the SE Redmond station area, including the guideway, are subject to the Citywide CFC.
    - The guideway area between the SE Redmond station area and Bear Creek is not subject to the Citywide CFC.
    - The guideway area within the Downtown railroad corridor (west of Bear Creek) is not subject to the Citywide CFC, but is subject to the Downtown CFC.
- Pervious areas are not subject to the Citywide CFC or the Downtown CFC.
- The Redmond Central Connector (RCC) trail paid fees at the time of its original construction, and fees for those surfaces are not required to be paid a second time. Some of the RCC trail areas are infiltrated and received a credit for their fees when they were paid. For the purpose of this calculation, it is assumed that the RCC trail will be reconstructed with an equivalent amount of hard surface and infiltration.

- Although the Downtown CFC includes optional credits for areas that are infiltrated, this calculation has assumed no infiltration. The design build contractor may choose to include infiltration in their final design to take advantage of the optional credits.

Table 1 below shows the maximum estimated amount that the design builder will need to pay in Stormwater Capital Facilities Charge fees for the project.

Table 1: Stormwater CFC Fee

	Total Contiguous Area (SF)	Pervious Area (SF)	RCC Trail Area (SF)	New/Replaced Impervious Area (SF)	Impervious Units	Citywide CFC ($)	Downtown Subbasin CFC ($)	Fee ($)
SE Redmond	285,985	90,305	N/A	195,680	97.8	1,342	N/A	131,247.60
Downtown Redmond	291,155	95,730	48,495	146,930	73.4	N/A	5,979.00	438,858.60
							Total CFC Fee	**$570,106.20**

Fees may be higher than this estimate if:

- the amount of hard surface for the project is higher than assumed in this calculation; or
- if the amount of infiltration actually provided for the RCC trail is lower than assumed; or
- if there is a City code change that increases the fees before the fees are paid.

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Rabeh
Executive Project Director, DRLE

Attachments:

1. Stormwater CFC Areas Exhibits
2. COR Stormwater Capitial Facilities Charge

Concurrence:

for _____ / 1/17/19
Date
Kristi Wilson, Interim Director of Public Works
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
ST Document Control

Stormwater Capital Facilities Charge (CFC) — Effective 7.11.2018

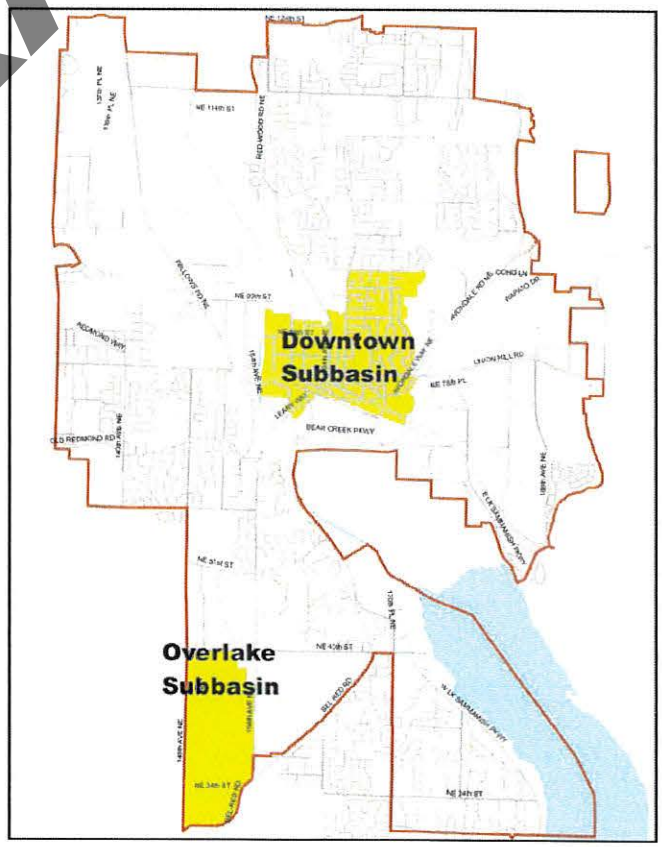
- For questions please contact Development Engineering at 425-556-2876 or DevelopmentEngineering@redmond.gov.
- Stormwater CFCs are due at the time of permit issuance for permits that allow creation of 200 SF or more of new or replaced impervious surfaces (civil approval, building permit, short plat approval, plat approval, etc.). Stormwater CFCs may be paid early if the applicant prefers.
- Stormwater CFCs only need to be paid once, however most parcels have not redeveloped since the fees were created so have not paid the Stormwater CFC. For parcels that have paid Stormwater CFCs before, analysis is required to determine what impervious areas were paid for previously, and if additional fees will be owed for the current project based upon that information.
- Citywide Stormwater CFCs apply to the portions of public and private projects that are located on parcels.
- Overlake and Downtown subbasin CFCs are in addition to Citywide Stormwater CFCs and apply to the portions of public and private projects in both parcels and rights-of-way that are located within the respective subbasins that are shown in the Stormwater Technical Notebook, and generally shown below.

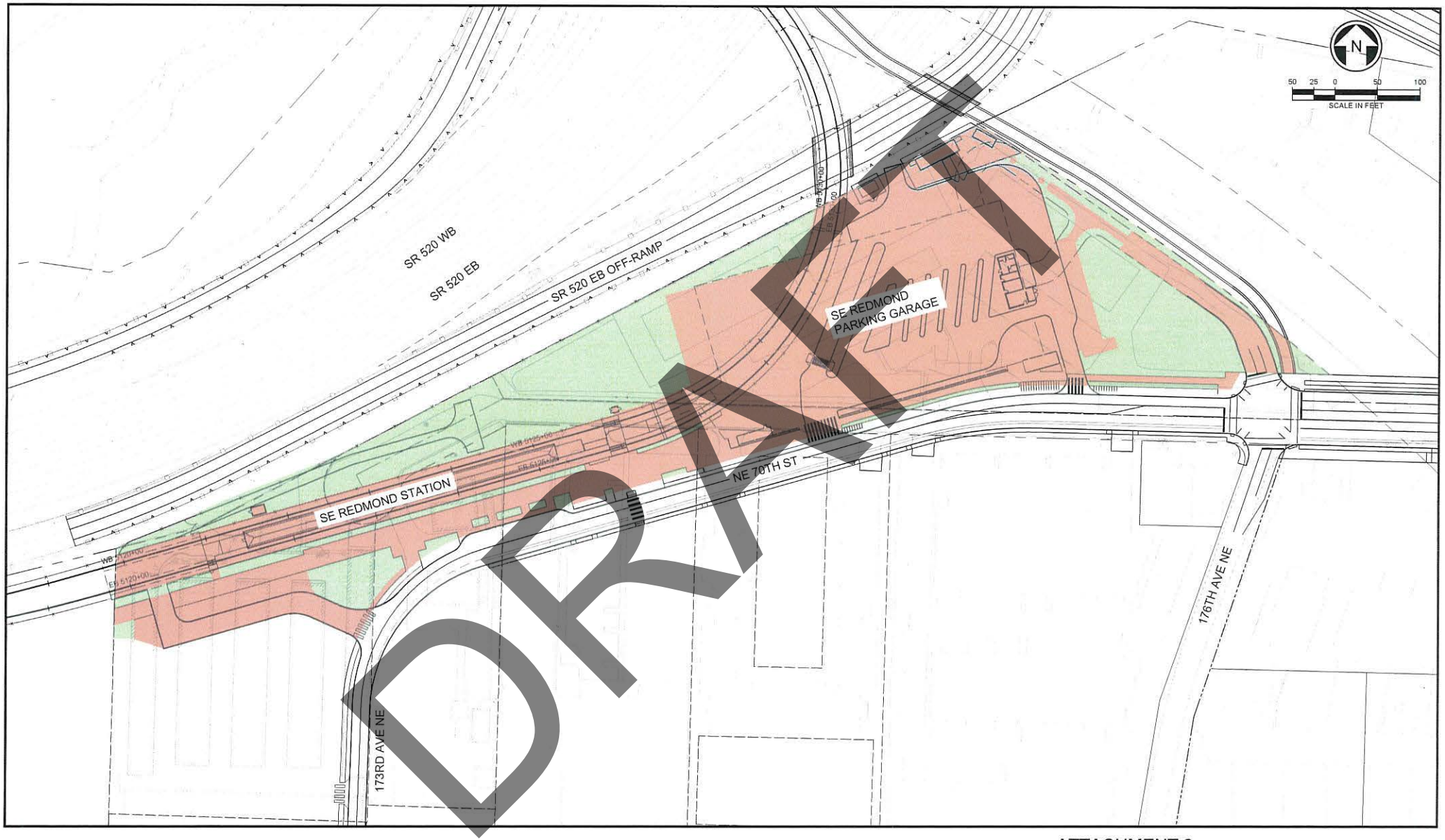
How to calculate fees:

Step 1: Determine the amount of new or replaced impervious area, in square feet.
Step 2: Divide the impervious area by 2000 square feet, to get "impervious units".
Step 3: Truncate the number of impervious units to the nearest tenth. (Truncated 85.59 = 85.5)
Step 4: Determine if any of the impervious units are designed to be fully infiltrated. The drainage report for the project must document that the area was designed for full infiltration. Those are "fully infiltrated impervious units".
Step 5: Citywide fee = (impervious units) * (Citywide CFC)
Overlake fee = [(total impervious units) – (0.8 * fully infiltrated impervious units)] * (Overlake CFC)
Downtown fee = [(total impervious units) – (0.8 * fully infiltrated impervious units)] * (Downtown CFC)

Stormwater Capital Facilities Charges		
Capital Facilities Charge (CFC)	**Current Fees**	**New Fees (July 11, 2018)**
Citywide CFC	$958.00	$1,342.00
Downtown subbasin CFC	$5,435.00	$5,979.00
Overlake subbasin CFC	$8,539.00	$10,929.00

Ordinance No. 2921 RMC 13.20





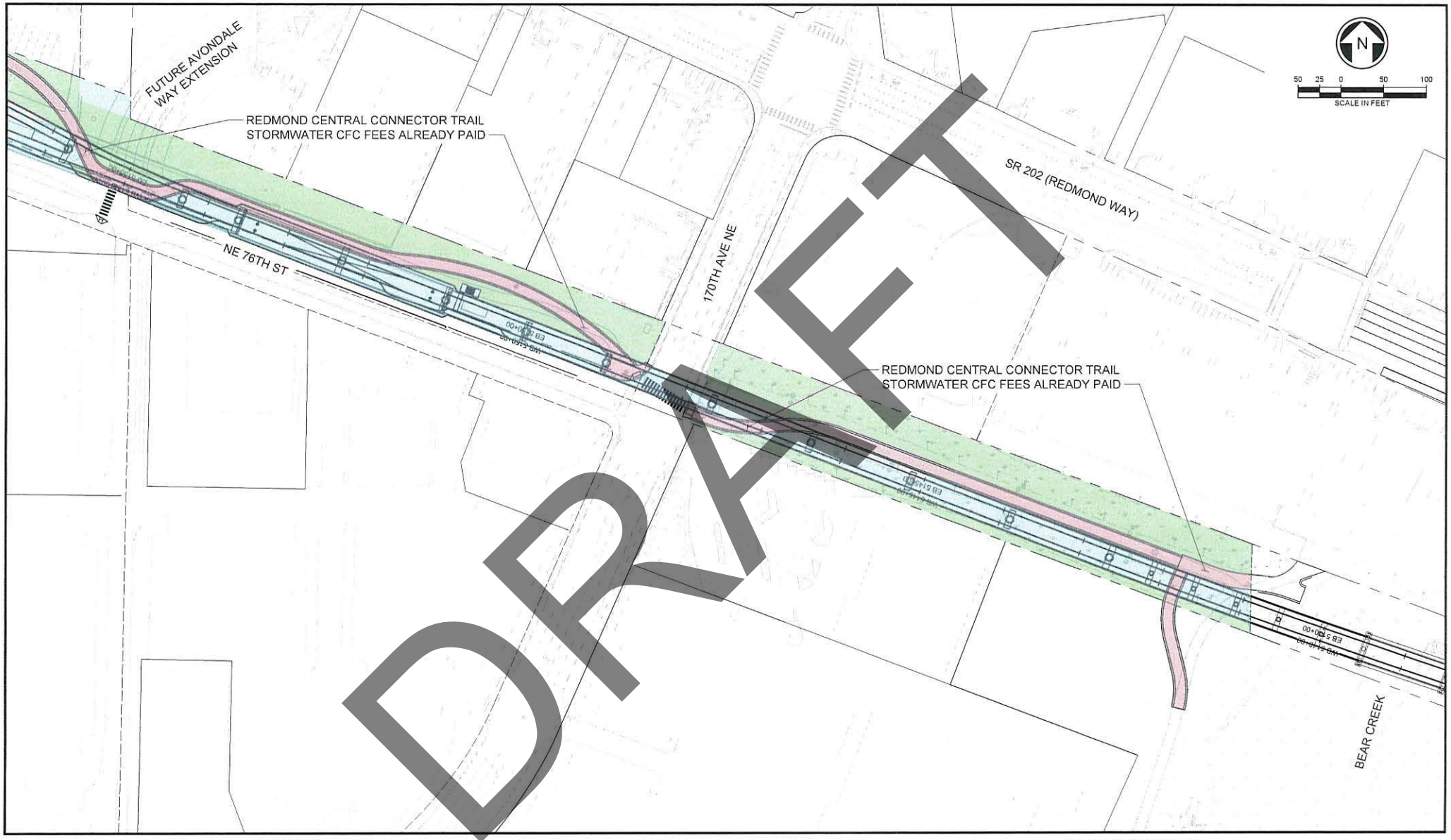
LEGEND

- CITYWIDE CFC AREA
- PERVIOUS AREA

08/09/18

SOUNDTRANSIT

ATTACHMENT 2
STORMWATER CAPITAL FACILITIES CHARGE (CFC)
SOUTHEAST REDMOND (SHEET 1 OF 3)
DOWNTOWN REDMOND LINK EXTENSION



LEGEND

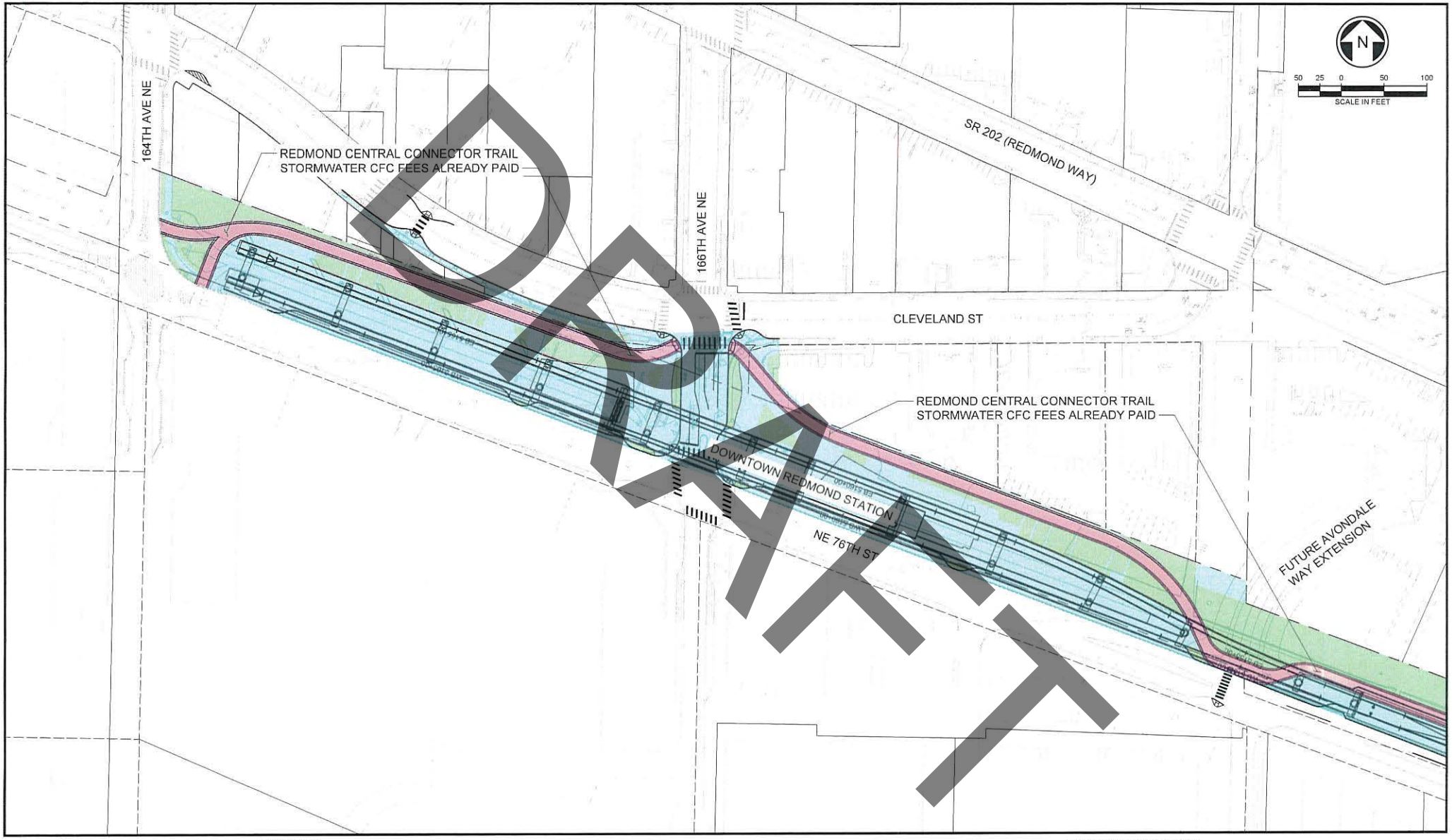
- DOWNTOWN SUBBASIN CFC AREA
- PERVIOUS AREA
- REDMOND CENTRAL CONNECTOR TRAIL AREA

08/09/18

SOUNDTRANSIT

ATTACHMENT 2

STORMWATER CAPITAL FACILITIES CHARGE (CFC)
DOWNTOWN REDMOND (SHEET 2 OF 3)
DOWNTOWN REDMOND LINK EXTENSION



LEGEND

- DOWNTOWN SUBBASIN CFC AREA
- PERVIOUS AREA
- REDMOND CENTRAL CONNECTOR TRAIL AREA

08/09/18

SOUNDTRANSIT

ATTACHMENT 2
STORMWATER CAPITAL FACILITIES CHARGE (CFC)
DOWNTOWN REDMOND (SHEET 3 OF 3)
DOWNTOWN REDMOND LINK EXTENSION

SOUNDTRANSIT

November 13th, 2018

Martin Pastucha
Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 15 DRLE: NE 70th Street & 173rd Avenue NE Cross Sections, 173rd Avenue NE Horizontal Curve Design Speed, and Street Vacation/Property Acquisition

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond on:

1. The proposed cross sections for NE 70th Street and 173rd Avenue NE
2. The proposed design speed for the horizontal curve from NE 70th Street to 173rd Avenue NE
3. The scope of work for a traffic island at the intersection of NE 67th St. and 173rd Ave. NE.
4. The amount of right-of-way required for the above street improvements

Roadway Cross Sections

There are four different proposed cross sections for NE 70th Street and one proposed cross section for 173rd Avenue NE, as the sections for each differ at certain points along the roadway. The details of the width of the roadway, sidewalks, buffers, bicycle facilities, and biofiltration swales were determined in coordination with the City of Redmond. See Attachment 1 for these proposed cross sections. The City provisionally concurs with Cross Section 1 for the north side of NE 70th St. If additional ROW must be acquired due to Redmond Way-NE 70th St. intersection design, then the City and Sound Transit will revisit the cross section with the goal of meeting Type 1 Street standards in Redmond Zoning Code Appendix 8A.

Horizontal Curvature and Design Speed

Sound Transit will be constructing NE 70th Street and 173rd Avenue NE, near the proposed Southeast Redmond Station. A horizontal curve will be present in the roadway, where these two new roadways connect. Consistent with the Technical Committee decision on July 18, 2018 date, the design speed for this horizontal curve shall be 25 mph, with a 200-foot radius to meet the requirements of RZC Appendix 2 – Construction Specification and Design Standards for Streets and Access, Table 4. At this location, it is desirable to use a slower design speed with a smaller horizontal curve to reduce the adjacent property impacts and maximize

the remaining amount of property for alternative potential uses. In addition, the Southeast Redmond station drop-off is near the horizontal curve. A reduced horizontal curve will slow users as they approach this high pedestrian volume area. The City will use adopted engineering standards to determine the appropriate posted speed for the horizontal curve.

Right-of-Way Required

Due to the station footprint, NE 70th Street will be realigned, and part of the existing street right-of-way will be vacated. In addition, the project will acquire new right-of-way with partial street improvements to NE 70th St. and construction of part of a new road, 173rd Avenue NE. See cross sections in Attachment 1 for extent of street improvements. With the construction of NE 70th Street and 173rd Avenue NE, there will be partial permanent acquisition of adjacent properties.

Table 1 below shows property impacts resulting from the new and realigned streets. See Attachment 2 for a graphic of these areas.

Table 1-Impact Areas to Parcels along NE 70th Street and 173rd Avenue NE

Sound Transit R/W No.	Parcel No. (Tax Account No.)	Proposed Cross Section(s)	Impact Area Sq. Ft.
RL175	1225059041	NE 70th Street Cross Section 2	297
RL172	3066100020	NE 70th Street Cross Section 2	3,358
RL171	1225059265	NE 70th Street Cross Section 2	15,395
RL170	1225059229	NE 70th Street Cross Section 2	3,052
RL169	1225059194	NE 70th Street Cross Section 3	113
RL166	1225059102	NE 70th Street Cross Section 3	1,963
RL160	1225059187	NE 70th Street Cross Section 4	8,767
RL157	5195500140	173rd Avenue NE Cross Section 1	30
RL156	1225059042	173rd Avenue NE Cross Section 1	7,127
RL155	5195500170	173rd Avenue NE Cross Section 1	10,049

RL 173 and RL 174 are excluded because the design of the Redmond Way-NE 70th St. intersection has not settled and may change the required ROW amount.

173rd Ave NE and NE 67th St Intersection

Sound Transit will construct a truck-mountable temporary traffic circle at the intersection of 173rd Avenue NE and NE 67th St with raised pavement markers and asphalt. The mountable curb will use WSDOT Standard Plan F-10.62 unless otherwise approved by the City. Sound Transit will also be responsible for raisng any manholes, castings, monuments or other infrastructure that the traffic circle goes over, and for providing any associated warning or regulatory signage on the approaches to the traffic circle. The scope excludes improvements to pavement and drainage except for repairs to any damage caused by Sound Transit during construction.

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen

DeWitt Jensen
Corridor Design Manager, DRLE

Concurrence:

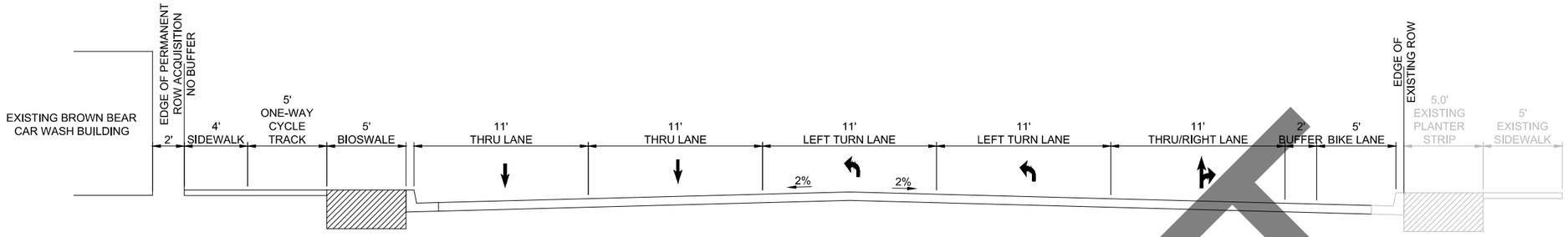
_____ / Nov 19, 2018
Date

Martin Pastucha, Director of Public Works
City of Redmond

Attachments:
1. Southeast Redmond Street Cross Sections
2. Impact Areas to Parcels along NE 70th St & 173rd Ave NE

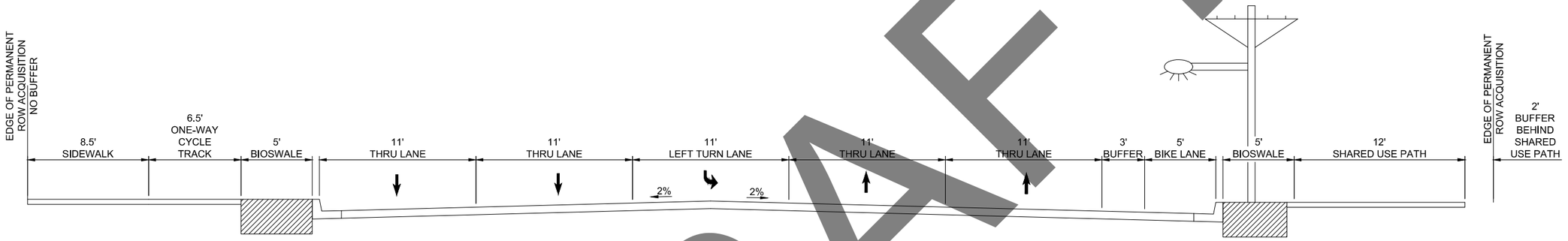
Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

NOTE:
FRANCHISE AND DRY UTILITIES ARE TO BE LOCATED INSIDE STREET RIGHT OF WAY.



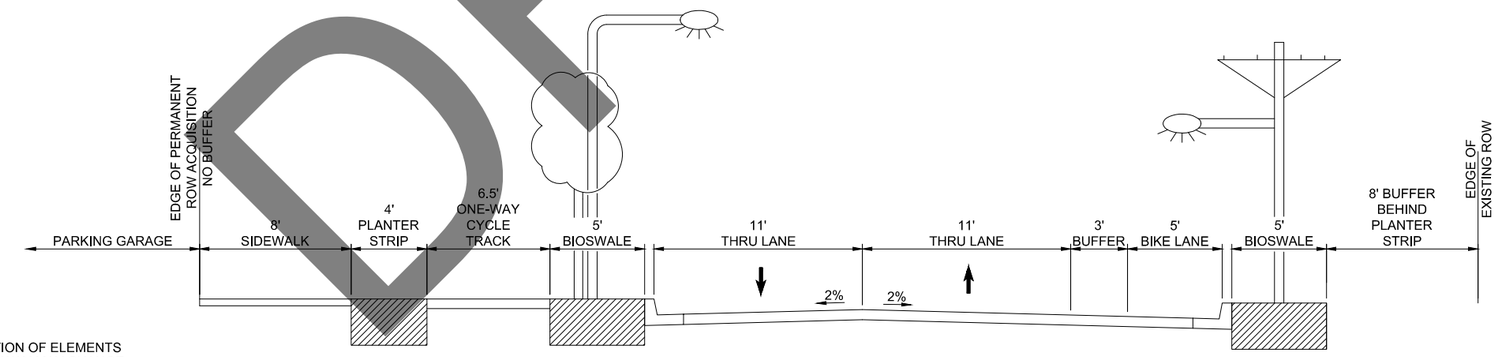
NE 70TH STREET CROSS SECTION 1 — A

BROWN BEAR CAR WASH TO SR 202



NE 70TH STREET CROSS SECTION 2 — B

NORTH SIDE: EAST OF 176TH AVE NE TO BROWN BEAR CAR WASH
SOUTH SIDE: EAST OF 176TH AVE NE TO WHOLE FOODS DRIVEWAY



*VARIATIONS TO THE CONFIGURATION OF ELEMENTS ON THE NORTH SIDE OF THE ROADWAY MAY CHANGE IN FINAL DESIGN WITH APPROVAL FROM THE CITY OF REDMOND

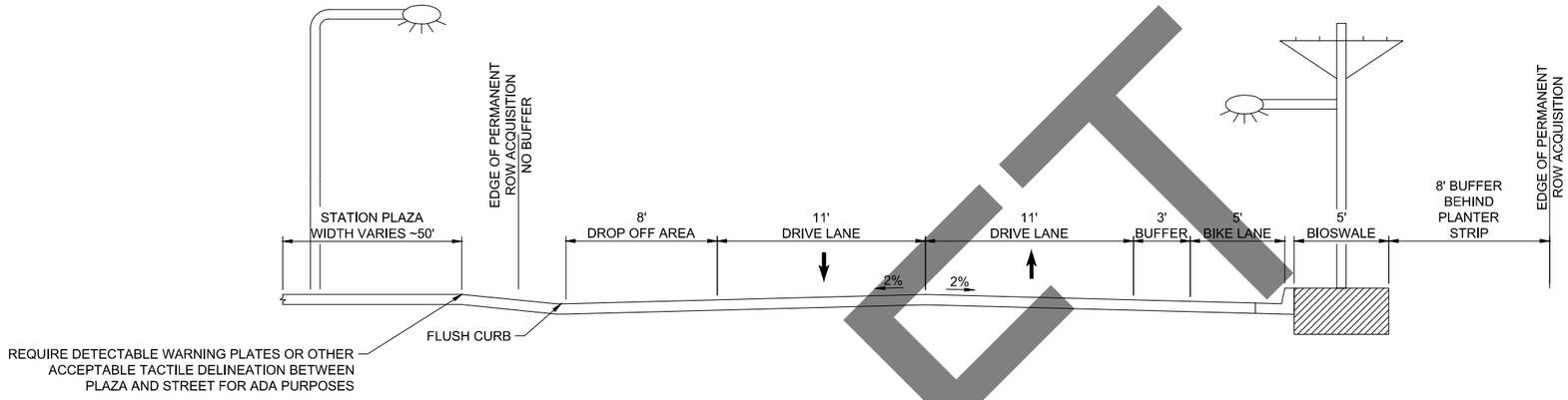
NE 70TH STREET CROSS SECTION 3 — C

WEST OF 176TH AVE NE TO SE REDMOND STATION PLAZA

ATTACHMENT 1
SOUTHEAST REDMOND STREET CROSS SECTIONS (SHEET 1 OF 2)
DOWNTOWN REDMOND LINK EXTENSION

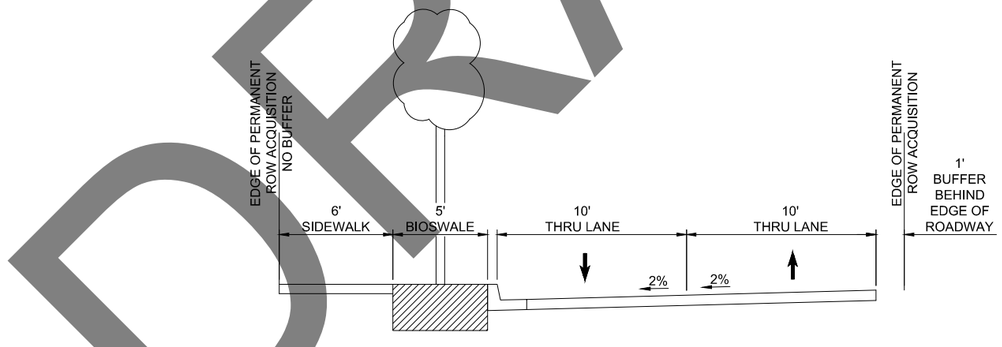
Date Printed: 11/15/2018 U:\LLR\RedmondLinkExt\PE\Working\Design Documentation\LOC 15-NE70thStreetSections.dwg

NOTE:
FRANCHISE AND DRY UTILITIES ARE TO BE LOCATED INSIDE STREET RIGHT OF WAY.



*VARIATIONS TO THE CONFIGURATION OF ELEMENTS ON THE NORTH SIDE OF THE ROADWAY MAY CHANGE IN FINAL DESIGN WITH APPROVAL FROM THE CITY OF REDMOND

NE 70TH STREET CROSS SECTION 4 — D / -
SE REDMOND STATION DROP-OFF SECTION

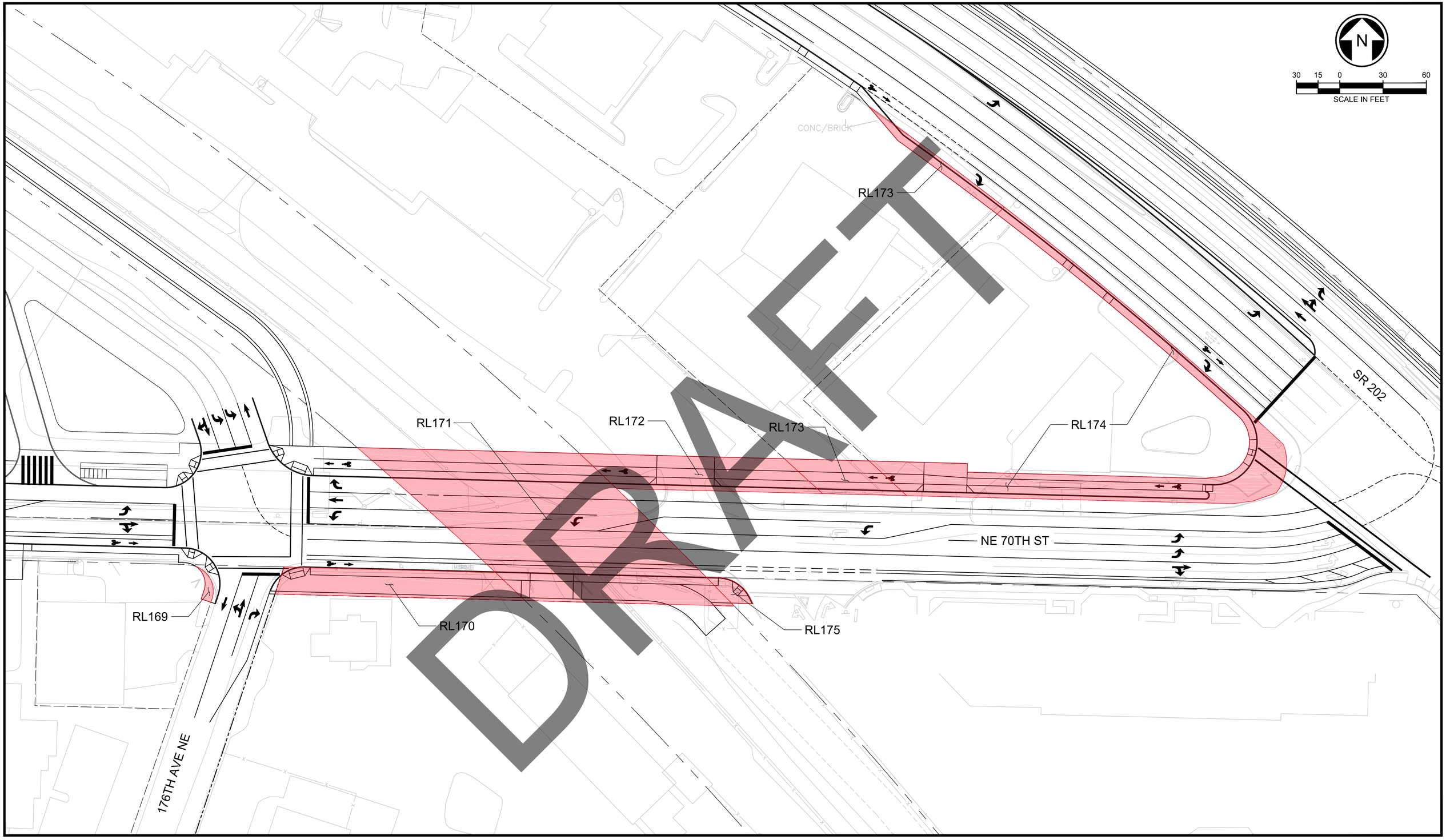


173RD AVENUE NE CROSS SECTION — E / -
SE REDMOND STATION PLAZA TO NE 67TH CT

Date Printed: 11/15/2018 U:\LLR\RedmondLinkExt\PE Working\Design Documentation\LOC 15-NE70thStreetSections.dwg

SOUNDTRANSIT

ATTACHMENT 1
SOUTHEAST REDMOND STREET CROSS SECTIONS (SHEET 2 OF 2)
DOWNTOWN REDMOND LINK EXTENSION



LEGEND

FEE ACQUISITION AREA

SOUNDTRANSIT

ATTACHMENT 2

FEE ACQUISITION AREAS TO PARCELS ALONG NE 70TH ST & 173RD AVE NE (SHEET 1 OF 2)

DOWNTOWN REDMOND LINK EXTENSION

09/25/18

RL160

RL166

NE 70TH ST

RL156

173RD AVE NE

RL155

SEE THIS SHEET

SEE THIS SHEET

173RD AVE NE

RL157

INSTALL TEMPORARY TRAFFIC CIRCLE

NE 67TH CT

176TH AVE NE

N

40 20 0 40 80

SCALE IN FEET

LEGEND

FEE ACQUISITION AREA

STREET TO BE VACATED

10/04/18

SOUNDTRANSIT

ATTACHMENT 2

IMPACT AREAS TO PARCELS ALONG NE 70TH ST & 173RD AVE NE (SHEET 2 OF 2)

DOWNTOWN REDMOND LINK EXTENSION

SOUNDTRANSIT

February 27th, 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 16 DRLE: NE 51st Street Utility Betterments & CFD Project No. 2 Interface

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond for the NE 51st Street utility betterments and the interface between the Downtown Redmond Link Extension project and the City of Redmond's CFD Project No. 2 – NE 51st Street Improvements project.

NE 51st Street Utility Betterments

The Downtown Redmond Link Extension project will add an additional 175 feet of 12" water main along with required appurtenances (tees, valves, etc.) to support the installation of a new 8" PRV station and vault for the City of Redmond. The new 8" PRV station will replace the existing PRV station located along the northern side of NE 51st St., approximately 210 feet east of the NE 51st St./SR 520 on/off-ramp intersection. This work will also include the installation of a new fire hydrant and lateral to help in set up and testing of the new 8" PRV station. The contractor shall install the PRV vault top elevation to match the grade of the sidewalk and install a gravity drain to the swale north of the PRV. Last, the DRLE Contractor will remove the existing PRV station and vault, then dispose of them as directed by the City of Redmond; this work will also include filling the existing 8" water main with CDF for abandonment by City of Redmond standards. The quantities for this betterment work are listed below:

- 175' 12" main
- 110' 8" main for PRV
- 25' 6" main for FH
- 1 8" PRV and vault per standard details 708, 709A, 709B, 710A, and 710B
- 1 FH
- 2 8" Gate Valves
- 2 12" Gate Valves
- 1 6" Gate Valve
- 2 cy yds CDF for 8" pipe abandonment
- Removal and dispose of existing 8" PRV

CFD Project No. 2 – NE 51st Street Improvements

The City of Redmond is in the design phase of the CFD Project No. 2 – NE 51st Street Improvements project which improves the roadway, sidewalks, curb radii, curb ramps, traffic signal, illumination, utilities, and drainage along NE 51st Street at and near the intersection of NE 51st Street and the SR 520 on/off-ramps. The Design-Builder will complete the work shown in the Downtown Redmond Link Extension drawings with concurrence from the City of Redmond. See Attachment 1 for the description of work to be done by Sound Transit and the City of Redmond. The City of Redmond is responsible for completion of their street improvement project up to the interchange ramp terminals. The City of Redmond expects to go to construction in summer 2019, with an anticipated completion of fall 2020.

To facilitate completion of the portion of the City's project at the interface with Sound Transit's project prior to Sound Transit's work beginning at the interface, the City agrees to the following:

- Work in good faith to advertise their project for bid by April 2019.
- Include provisions in their 51st St. construction contract, such as milestones, liquidated damages, or other constraints, that will facilitate substantial completion of work at the interface by July 2020.
- Each month following NTP of the City's CFD Project No. 2, the City will assess the likeliness of substantially completing the work at the Sound Transit interface by July 2020 and take corrective action, if necessary, to ensure the milestone is met.
- In the event the City's project work at the interface is not completed by July 2020 or when Sound Transit's contractor desires to begin work, whichever is later, the City will work with ST to identify options to minimize cost or other impacts to Sound Transit's project.

The reconstruction of the interchange ramp terminal intersection will be completed by Sound Transit using the design concept provided by the City's 90% design submittal of 51st. Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Raben
Executive Project Director, DRLE

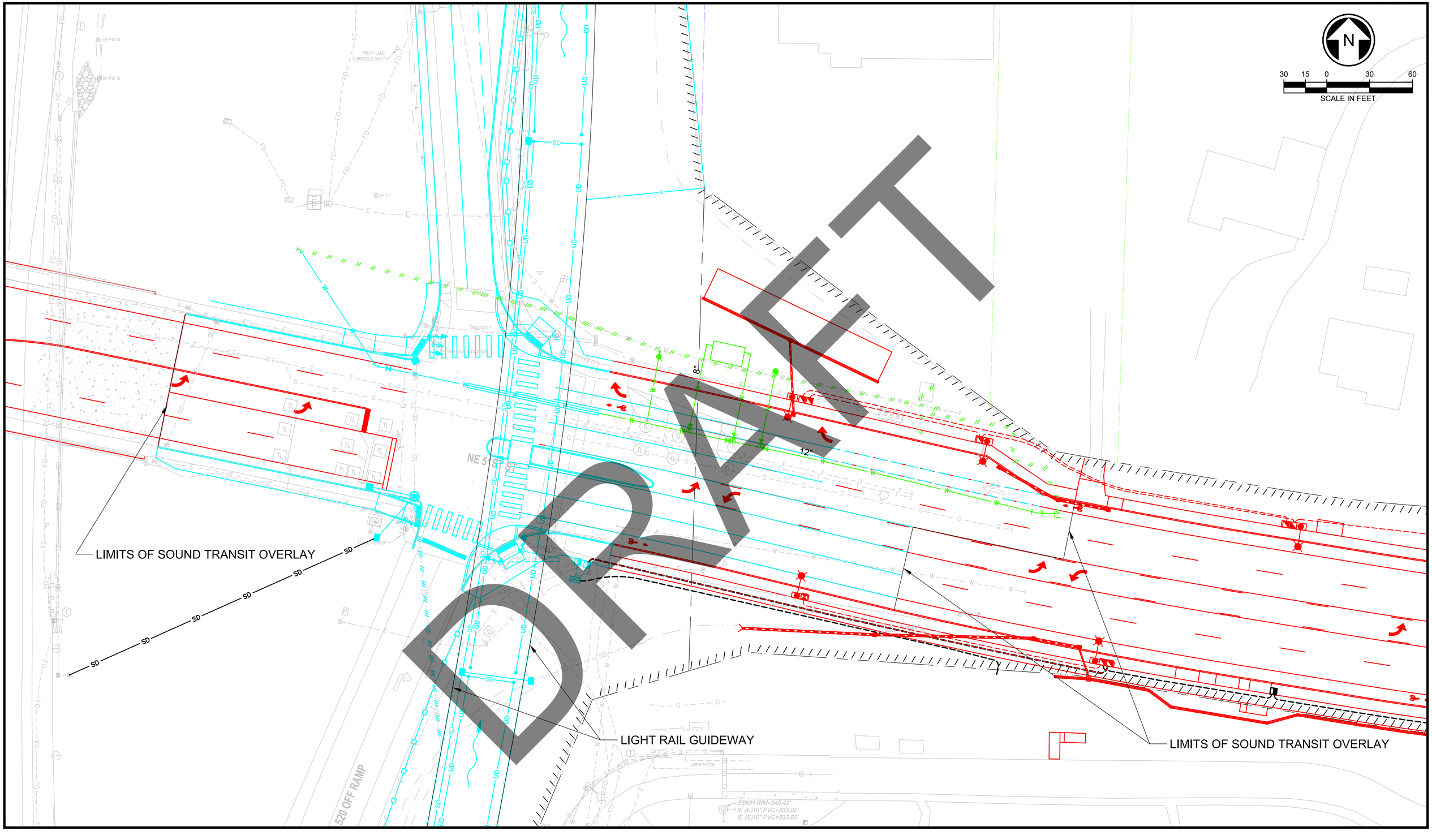
Attachments:
1. NE 51st Street Improvements

Concurrence:

Kristi Wilson, 3/1/19
Date

Kristi Wilson, Interim Director of Public Works
City of Redmond

Enclosure (s):
cc: ST Document Control



LEGEND

- WORK DONE BY CITY OF REDMOND
- WORK DONE BY SOUND TRANSIT
- WORK DONE BY SOUND TRANSIT, PAID FOR BY CITY OF REDMOND

01/28/19

SOUNDTRANSIT

ATTACHMENT 1

NE 51ST ST IMPROVEMENTS

DOWNTOWN REDMOND LINK EXTENSION

SOUNDTRANSIT

February 5th, 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 17 DRLE: NE 70th Street & Redmond Way (SR 202) Betterment and Right of Way (ROW) Acquisition & Schedule

Purpose

The City of Redmond requests that Sound Transit construct, as a betterment, an additional northbound left turn lane at the intersection of Redmond Way and NE 70th Street. The purpose of this letter is to seek concurrence from the City of Redmond on the funding responsibility, civil improvements, and right-of-way (ROW) acquisition associated with this betterment.

Redmond Way Roadway Improvements

The scope of the City betterment at Redmond Way and NE 70th St. is:

- Design and construction of an additional northbound left turn lane at the intersection of SR 202 and NE 70th Street.
- Widening of SR 202 to the northeast to accommodate the additional left turn lane
- Realignment of through lanes along Redmond Way east and west of NE 70th Street required because of the additional left turn lane.
- Modifications to the existing medians within Redmond Way required because of the additional left turn lane
- Stormwater and drainage modifications required to accommodate the additional left turn lane (on-site or modificaitions to an existing pond, to be determined by Sound Transit's design-build contractor)
- Signal and lighting modifications required because of the additional left turn lane
- Any additional work required solely to complete the betterment

Construction of the additional right turn lane from SB Redmond Way to WB NE 70th St., and any additional work required solely to complete the right turn lane, is excluded from the scope of the betterment. The City of Redmond agrees to pay for improvements related to the betterment. See Attachment 2 for the proposed civil improvements related to the addition of the northbound left turn lane.

Roadway Cross Sections

There are two different proposed cross sections for SR 202 in the vicinity of NE 70th Street. The details of the width of the roadway, sidewalks, planters, and bicycle facilities were determined in coordination with the City of Redmond. See Attachment 1 for these proposed cross sections. These sections are subject to final WSDOT channelization plan approval, to be completed by the Contractor.

Right of Way (ROW) Acquisition

The addition of the northbound left turn lane will have impacts on adjacent properties along the north side of SR 202.

Sound Transit agrees to produce the parcel maps and legal descriptions to support the right-of-way acquisitions. The City of Redmond will complete the necessary appraisals and acquire and purchase the property rights, both permanent and temporary. The targeted date for possession and use of the property is **December 31, 2020**, assuming receipt by the City of complete and accurate parcel maps and legal descriptions by April 1, 2019. Any delays past December 31, 2020 may incur additional costs due to change orders from the Contractor for which the City of Redmond will be responsible. If the City of Redmond is unable to provide possession and use by **January 31, 2022**, then Sound Transit will not construct the project.

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Raben
Executive Project Director, DRLE

Concurrence:

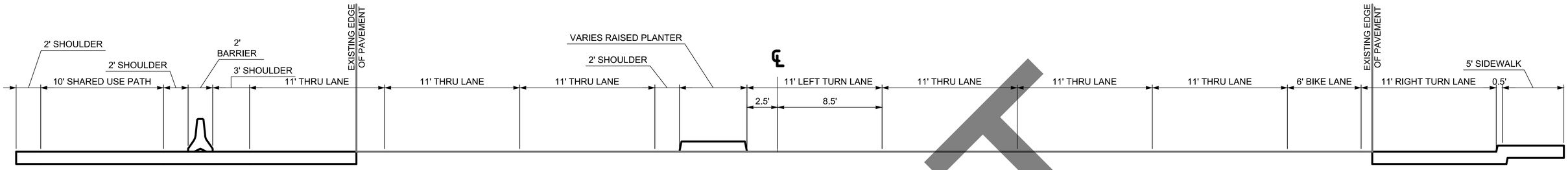
Kristi Wilson, 2/19/19
Date

Kristi Wilson, Interm Director of Public Works
City of Redmond

Attachments:
1. SR 202 Cross Sections
2. SR 202 Roadway Improvements

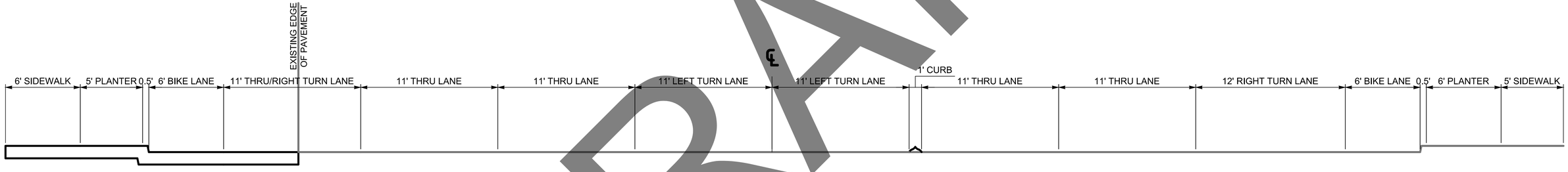
Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)

ST Document Control



SR 202 TYPICAL SECTION (A)

NORTH OF NE 70TH STREET
NTS



SR 202 TYPICAL SECTION (B)

SOUTH OF NE 70TH STREET
NTS

LEGEND

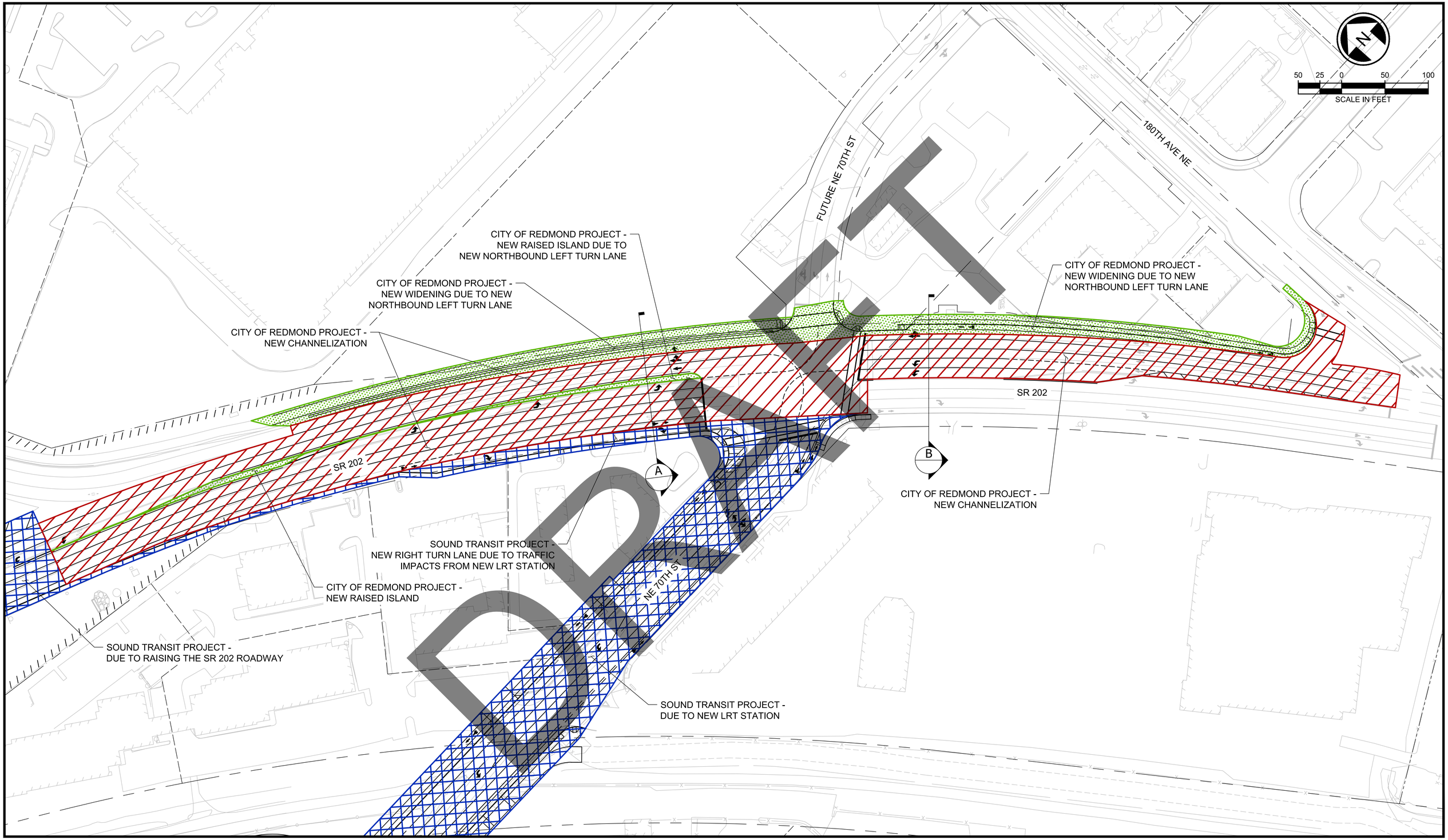
EXISTING ROADWAY

NEW ROADWAY

01/28/19

SOUNDTRANSIT

ATTACHMENT 1
SR 202 CROSS SECTIONS
DOWNTOWN REDMOND LINK EXTENSION



LEGEND

- SOUND TRANSIT WORK
- CITY OF REDMOND CIVIL WORK
- CITY OF REDMOND NEW CHANNELIZATION WORK

01/28/19

SOUNDTRANSIT

ATTACHMENT 2
SR 202 ROADWAY IMPROVEMENTS
DOWNTOWN REDMOND LINK EXTENSION

SOUNDTRANSIT

February 5th, 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 18 DRLE: Redmond Way & NE 76th Street Roadway Improvements

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond for the Redmond Way and NE 76th Street roadway improvements and funding responsibilities for betterments, included in the Downtown Redmond Link Extension scope of work. The portions of roadway that are being agreed upon are: 1) Redmond Way from the driveway of Creekside Crossing to the intersection of Redmond Way and NE 76th Street/SR 520 WB On-Ramp, and 2) NE 76th Street from the intersection of Redmond Way to the Fred Meyer/Target traffic signal.

Sound Transit Scope

Sound Transit will be adjusting the grade of the Redmond Way-NE 76th St./SR 520 WB On-Ramp intersection as part of light rail project to accommodate the light rail undercrossing. This scope of work includes paving, striping, adjustment of utilities to grade, retaining walls, signal work, and any additional work associated with completing the grade adjustment. See Attachment 1 which defines the scope of work limits in blue.

City of Redmond Scope

The City of Redmond requests that Sound Transit construct, as a betterment, an additional eastbound left turn lane from Redmond Way to NE 76th Street. This scope includes:

- Design and construction of additional eastbound left turn lane and northbound receiving/thru lane on NE 76th St from Redmond Way to the traffic signal servicing Fred Meyer and Target
- Curb, gutter, pavement and lane restriping on NE 76th St. from Redmond Way to the Fred Meyer/Target traffic signal, a total distance of about 1,100 feet, that would not be required but for the betterment
- The removal of sidewalk on the existing SR 202 bridge over Bear Creek to provide enough space for the eastbound left turn lane

- Revised curb taper on Redmond Way given removal of sidewalk
- Construction of new curb and sidewalk on the south side of Redmond Way near Creekside Crossing
- New channelization from the existing SR 202 bridge to the driveway of Creekside Crossing
- Any additional work required solely to complete the betterment

See Attachment 1 for improvements associated with the City of Redmond betterment described above.

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.
Sincerely,

Tony Raben
Executive Project Director, DRLE

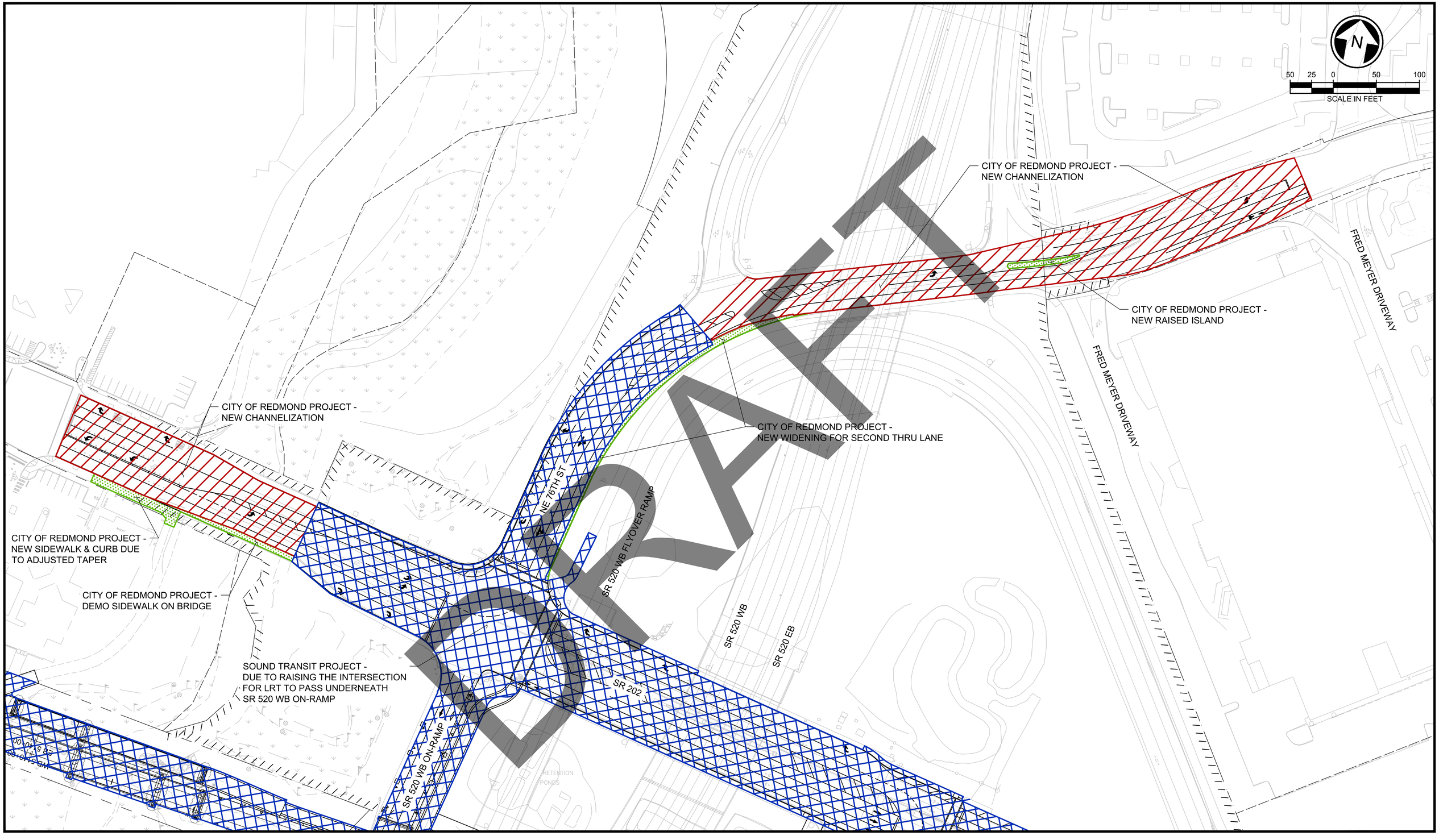
Attachments:
1. SR 202 & NE 76th Street Roadway Improvements

Concurrence:

Kristi Wilson 2/19/19
Date

Kristi Wilson, Interm Director of Public Works
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
ST Document Control



LEGEND

- SOUND TRANSIT WORK
- CITY OF REDMOND CIVIL WORK (BETTERMENT)
- CITY OF REDMOND NEW CHANNELIZATION WORK (BETTERMENT)

01/28/19

SOUNDTRANSIT

ATTACHMENT 1

SR 202 & NE 76TH STREET ROADWAY IMPROVEMENTS

DOWNTOWN REDMOND LINK EXTENSION

SOUNDTRANSIT

October 17th, 2018

Martin Pastucha
Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 21 DRLE: SE Redmond Sewer Connection Charge

Purpose

The purpose of this letter is to seek concurrence from the City of Redmond that the additional sewer connection charge for the station and garage sites in SE Redmond will be based on the expected sewage flows from the station and garage. City staff has calculated the additional sewer connection charge to be $50,083.82. This amount, and its escalation by 2.45% annually beginning January 1, 2020 for ten years, is subject to City Council approval.

In exchange, Sound Transit agrees to limit development on the station and garage sites to uses that generate the same or less sewage than the station and garage are expected to generate, i.e., no net increase in sewage flow would be permitted. Sound Transit agrees to record a covenant or similar instrument on the subject parcels to prevent sewage flow in excess of what the station and garage are expected to generate. Sound Transit will record the covenant or similar instrument prior to building permit issuance for the garage.

The general sewer connection charge still applies, and depends on the size of the water meter(s) at the site.

Should you have any questions, please don't hesitate to contact me at (206) 903-7486. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

DeWitt Jensen
Corridor Design Manager, DRLE

Concurrence:

_____ / Oct 19, 2018
Date

Martin Pastucha, Director of Public Works City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
Tony Raben (Project Director, ST)
ST Document Control

SOUNDTRANSIT

January 8th, 2019

Kristi Wilson
Interim Director of Public Works
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 22 DRLE: NE70th Street Dedication

Purpose

The purpose of this letter is to memorialize the timing of the transition from the existing NE 70th Street to the new alignment of NE 70th Street, including:

1. The replacement of existing utilities and associated property rights in the current alignment with new utilities and associated property rights in the new alignment;
2. The replacement of existing public access and associated property rights in the current alignment with new public access and associated property rights in the new alignment; and
3. Meeting WSDOT needs for the surplus and vacation of the cul-de-sac at the westerly terminus of existing NE 70th Street.

Granting and Extinguishing Temporary Property Rights

Sound Transit will acquire property for the relocated NE 70th Street and a new street, 173rd Avenue NE. Sound Transit will compensate the City of Redmond (City) for the street vacation of the existing NE 70th Street roadway, by providing the new street right of way, to be purchased by Sound Transit and transferred to the City at the end of construction. This approach is subject to Redmond City Council approval.

As part of the street vacation process, the City will issue a letter to WSDOT, in the sample form attached hereto, to acknowledge that the cul-de-sac at the westerly terminus of existing NE 70th Street is no longer needed for street purposes, and that the City agrees with the decision for WSDOT to sell the cul-de-sac to Sound Transit.

Simultaneous with the City's vacation of existing NE 70th Street, Sound Transit will grant:

- Temporary rights to each existing utility for each existing utility to continue to operate in the existing NE 70th Street alignment. These temporary rights will expire individually as their new replacement utility

improvements become functional in the new NE 70th Street alignment, together with new temporary property rights for utility operations.

- Temporary rights of public access so that the existing NE 70th Street alignment can continue to be used for property access. These temporary rights will expire when new access and access rights are created in the new NE 70th Street alignment.

Temporary utility and public access rights in the new NE 70th Street alignment will be written to expire at the moment Sound Transit deeds the new NE 70th Street to the City as street right of way. See table below for utilities in NE 70th Street that will need temporary easements.

Required Temporary Utility Easements

	Old NE 70th St Alignment	New NE 70th St Alignment
CoR Water	12-in Water Main	12-in Water Main
CoR Sewer	8-in Sewer Main	8-in Sewer Main
PSE Gas	4-in Gas Main	New Gas Main
Frontier Telecom	Ovhd Telecom Line (on PSE poles)	New Ovhd Line (on PSE poles)
Comcast Telecom	Both Ovhd Telecom Line (on PSE poles) and underground relocation	New Ovhd Line (on PSE poles)

For PSE power on overhead (Ovhd) poles that are currently located within a private easement, Sound Transit will grant PSE a permanent easement for the power poles when they are located in areas planned as the new NE 70th St. Sound Transit will write the permanent easement to expire at such time that PSE's facilities are undergrounded by future development projects; the city will then grant PSE an underground easement.

Sound Transit will extinguish any old services (water, side sewer, power, gas and telecom) that are on properties acquired in full, and will restore services to properties acquired in part.

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Raben
Executive Project Director, DRLE

Concurrence:

Kristi Wilson, Interim Director of Public Works
City of Redmond

1/10/19
Date

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
ST Document Control

DATE

Betsy Chase
Washington State Department of Transportation
Real Estate Services
15700 Dayton Avenue North
PO Box 330310, NB82-118
Seattle, WA 98133-9710

RE: Downtown Redmond Link Extension (DRLE)
RL165 – cul-de-sac at west end of NE 70th Street, Redmond
Street Vacation Confirmation

Dear Ms. Chase,

The City of Redmond is vacating a portion of NE 70th Street to Sound Transit as part of the DRLE project. The vacation will include the WSDOT-owned cul-de-sac at the west end of NE 70th Street.

The purpose of this letter is to confirm that, once the street vacation is complete, the City of Redmond will no longer have a street purpose for the cul-de-sac, and that the City of Redmond agrees with the decision for WSDOT to sell the cul-de-sac to Sound Transit for the DRLE project.

Please let me know if you have any questions.

Sincerely,

Kristi Wilson
Interim Director of Public Works
kwilson@redmond.gov

SOUNDTRANSIT

Febuary 13th, 2019

Todd Short, Fire Marshal
Redmond Fire Department, Fire Prevention Division
City of Redmond
15670 NE 85th Street
Redmond, WA, 98073

Downtown Redmond Link Extension, Letter of Concurrence
LOC 23 DRLE: SE Redmond Parking Garage Access

Purpose

Sound Transit seeks concurrence from the City of Redmond Fire Department for the access at parking garage at the SE Redmond Station.

The conceptual design in the RFP shows that the guideway cuts-off fire fighter access to the northwest corner of the SE Redmond parking garage from NE 70th St., and the new elevated off ramp from EB SR 520 will prevent easy access for the fire department from the SR 520 (north) side. Therefore, Sound Transit will provide the following:

- An emergency vehicle turnaround on the north side of the tracks accessible to the Redmond Fire Department through the hi rail access by Knox box, and designed to accommodate fire vehicle parking and operations
- A standpipe at the corner of the parking garage at the ground level, closest to and accessible from the emergency vehicle turnaround.

Should you have any questions, please don't hesitate to contact me at (206) 398-5171. Please sign below and return one of the enclosed originals – please keep the additional copy for your records.

Sincerely,

Tony Raben
Executive Project Director, DRLE

Concurrence:

Todd Short, 2/20/19

Todd Short, Fire Marshal Date
City of Redmond

Enclosure (s):
cc: Leonard McGhee (Project Manager, ST)
ST Document Control