



Planning & Development Division
Planning & Economic Development Department

Room 160
411 West First Street
Duluth, Minnesota 55802



218-730-5580



planning@duluthmn.gov

File Number	PL 23-038	Contact	Kyle Deming	
Type	Special Use Permit – Restaurant	Planning Commission Date		March 14, 2023
Deadline for Action	Application Date	February 17, 2023	60 Days	April 18, 2023
	Date Extension Letter Mailed	February 23, 2023	120 Days	June 17, 2023
Location of Subject	Southwest corner of Anderson Rd. and Central Entrance (Mall Area)			
Applicant	The Jigsaw, LLC	Contact	Dan Regan	
Agent	Kimley-Horn	Contact	Brian Wurdeman	
Legal Description	Lot 2, Block 1, Jigsaw Division			
Site Visit Date	March 3, 2023	Sign Notice Date	February 27, 2023	
Neighbor Letter Date	February 24, 2023	Number of Letters Sent	24	

Proposal

A Special Use Permit to allow two restaurants in the Jigsaw development at the southwest corner of Central Entrance and Anderson Rd. The project will consist of a 2,500 sq. ft. restaurant and a 660 sq. ft. drive-thru coffee kiosk and related parking and landscaping.

Recommended Action: Approve with conditions.

	Current Zoning	Existing Land Use	Future Land Use Map Designation
Subject	MU-N	Vacant	Neighborhood Mixed Use
North	MU-C	Hotel and bank	Neighborhood Mixed Use
South	MU-N and R-1	Dwellings	Neighborhood Mixed Use and Traditional Neighborhood
East	MU-N	Vacant	Neighborhood Mixed Use
West	MU-N	Vacant	Neighborhood Mixed Use

Summary of Code Requirements

Sec. 50-37.10 – Special Use Permits: Planning Commission shall approve the application or approve it with modifications, if it is determined that the application meets the following criteria:

1. The application is consistent with the Comprehensive Land Use Plan;
2. The application complies with all applicable provisions of this Chapter; including without limitations to any use-specific standards applicable to the proposed use, development or redevelopment, and is consistent with any approved district plan for the area.
3. Without limiting the previous criteria, the Commission may deny any application that would result in a random pattern of development with little contiguity to existing or programmed development or would cause anticipated negative fiscal or environmental impacts on the community.

Sec. 50-20.3.Q – Restaurant Use Specific Standards.

1. In the R-2 and MU-N district, no use shall exceed 5,000 sq. ft. in gross floor area;
2. Drive-ins and drive-throughs for restaurants are only allowed in the MU-N, MU-C, MU-B, MU-P, F-2, F-3, F-4, and F-5 zone districts;
3. Drive-through lanes shall allow for stacking space for 5 cars;
4. When in the MU-N district, the following additional standards apply: (a) The speaker box and drive-through window must be at least 50 feet from any property line containing a residential structure; (b) Drive-through may not open before 7:00 a.m. or after 10:00 p.m. during the weekday, or before 8:00 a.m. or after 10:00 p.m. on the weekend. Drive-through may be open at 6:00 a.m. during the weekday or at 7:00 a.m. on the weekend only if all speaker boxes and drive through windows are at least 125 feet from any residential structure, or open until 11:00 pm on Friday and Saturday if all speaker boxes and drive-through windows are at least 250 feet from any residential structure, excluding any residential use or structure on the same property or within the same development; (c) Glare and noise from cars in the drive-through lane and stacking space shall be shielded from adjacent residential properties through the use of screening, fencing, and/or a dense urban screen; (d) The land use supervisor may require that the drive-through be located on the opposite side of the building from a residential use or that a masonry sound wall be constructed; (e) Restaurants are limited to one drive through lane and one speaker box;

Comprehensive Plan Governing Principles and/or Policies and Current History (if applicable):

Governing Principle #8 – Encourage mix of activities, uses, and densities. The two proposed restaurants would follow a fast food restaurant approved for the parcel to the west in the Jigsaw development. There are two additional sites within the Jigsaw development for additional uses.

Governing Principle #9 – Support private actions that contribute to the public realm. – Project will extend 350 feet of sidewalk along Anderson Rd. from Central Entrance to the project's entrance.

Zoning –Mixed Use-Neighborhood (MU-N) - a mix of neighborhood-scale, neighborhood serving non-residential uses and a range of residential uses located in close proximity. Non-residential uses may include small-scale retail, service and professional offices that provide goods and services to the residents of the surrounding neighborhood.

Future Land Use – Neighborhood Mixed Use - A transitional use between more intensive commercial uses and purely residential neighborhoods. Includes conversions of houses to office or live -work spaces. May include limited commercial-only space oriented to neighborhood or specialty retail markets. Site design should maintain a largely residential building character. Commercial-only uses should be adjacent to non-residential or other mixed-use areas.

History:

1. Site was zoned R-1 prior to 2012 when it was rezoned MU-N in implementation of the Central Entrance Small Area Plan that was adopted by City Council in 2009.
2. The site is part of the 3.5-acre Jigsaw Division plat that was approved by the Planning Commission 10/9/2018.
3. A 1950s era home on the site was removed in 2020.
4. May 11, 2021 Planning Commission approved a special use permit for a 2,287 sq. ft. restaurant (PL 21-047) on a parcel west of the proposed restaurants.
5. August 10, 2021 Planning Commission approved a minor subdivision (PL 21-120) on Lot 1 and Lot 2 to create a parcel for the restaurant approved in May 2021.

Review and Discussion Items

Staff finds that:

1. The proposed special use permit is to allow two restaurants on Lot 2 of Jigsaw Division, one, 2,500 sq. ft. with no drive-thru, and the second, 664 sq. ft. coffee kiosk with a drive-thru. The 2,500 sq. ft. restaurant is proposed to be in a building with a 3,500 sq. ft. aesthetic studio (personal service).
2. The proposed coffee kiosk includes a one-lane drive-thru with more than 5 vehicle stacking space, as is required.
3. The drive-thru may be open from 6 a.m. until 10 p.m. on weekdays and 7 a.m. until 11 p.m. on weekends since the speaker box is more than 250 feet from a residential structure. No screening is required for vehicles using the drive-thru due to its location away from residential properties.
4. The site plan shows 38 parking spaces for the two proposed restaurants and anticipated personal service use. This is within the range allowed for the three businesses (minimum of 29 parking spaces and a maximum of 43 spaces).

Here is the calculation: the personal services use requires 2.5 parking spaces per 1,000 sq. ft. of building space yielding a minimum of 8 space and maximum of 13 spaces, the coffee kiosk requires 4 spaces with a maximum of 6 spaces (6.5 parking spaces per 1,000 sq. ft. of building area for restaurants), and the other restaurant requires 16 spaces with a maximum of 24 spaces.

5. The applicant provided an updated trip generation memo indicating that vehicle trips to/from the site are not expected to increase with the proposed restaurants when compared with the original volumes forecasted in the 2018 Traffic Impact Analysis.
6. The landscape plan submitted does not provide enough trees along the Central Entrance frontage (8 are required, 3 are shown). This will need to be corrected before the building permit application.
7. HVAC mechanical units are not shown and will need to be screened from view, which can be verified at time of building permit application.
8. Trash screening is shown on the plans with compliant materials.
9. Retaining wall shown on the site plan complies with height limits, including required landscaping between terraces.
10. Ground-mounted and building mounted signs shown on the plans will need to comply with the Master Sign Plan, which is to be reviewed by the Planning Commission at this March meeting (PL 23-021).
11. Sustainability and building design standards do not apply due to the size of the structures.
12. Exterior lighting details were not provided with the plans. A photometric plan and fixture details will need to be reviewed during the building permitting process.
13. One comment: MN-DOT commented that the driveway is to be installed as permitted by them. No other comments.

Staff Recommendation

Based on the above findings, staff recommends that Planning Commission adopt the findings of fact in the staff report and approve the special use permit with the following conditions:

1. The project be limited, constructed, and maintained consistent with plans titled "Site Development Plans for The Jigsaw" by Kimley-Horn, dated 12/6/2022, including Sheet C3.0 – Site Plan, Sheet C4.0 – Grading Plan, Sheet L1.0 – Landscape Plan, and Sheet L1.1 – Landscape Details and any amendments approved by the Land Use Supervisor as listed below.
2. Applicant provide additional trees along the Central Entrance frontage to comply with the UDC.
3. Applicant provide mechanical screening details.
4. Applicant provide a photometric plan with light fixtures compliant with UDC requirements.
5. Any alterations to the approved plans that do not alter major elements of the plan may be approved by the Land Use Supervisor without further Planning Commission approval; however, no such administrative approval shall constitute a variance from the provisions of Chapter 50.



PL 23-038
Special Use Permit -
Restaurant
The Jigsaw, LLC

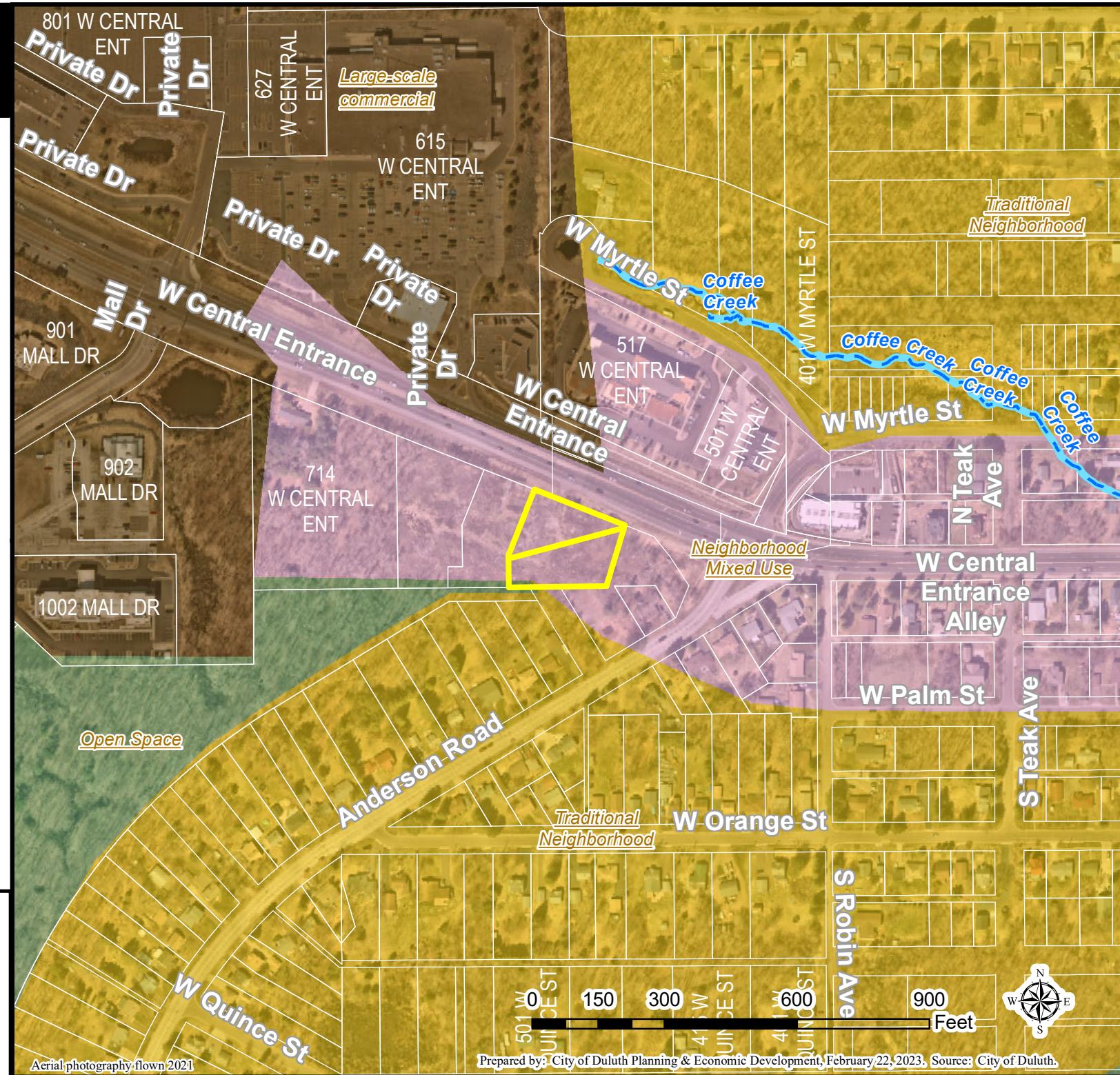
Area Map





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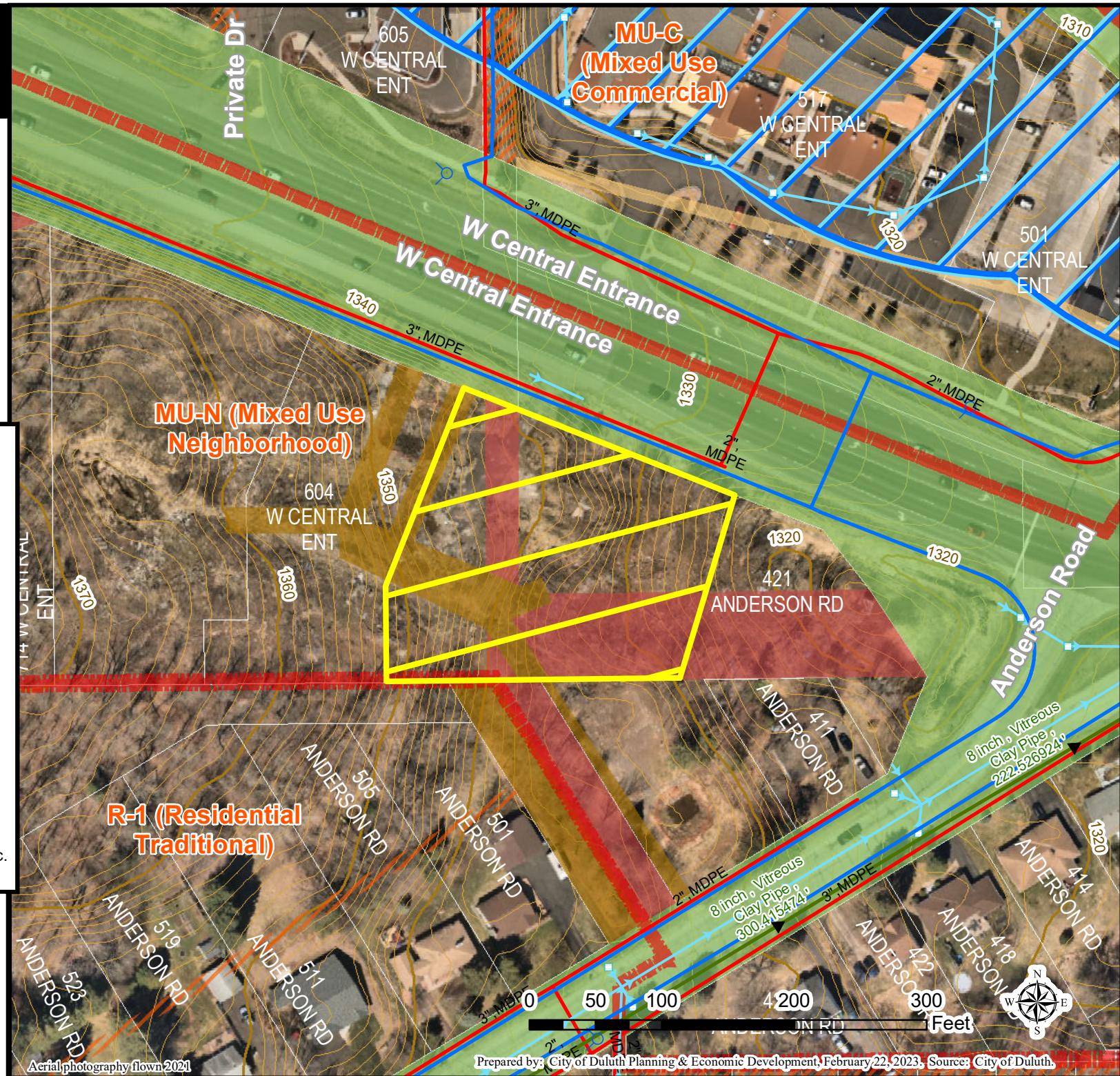
Future Land Use Map

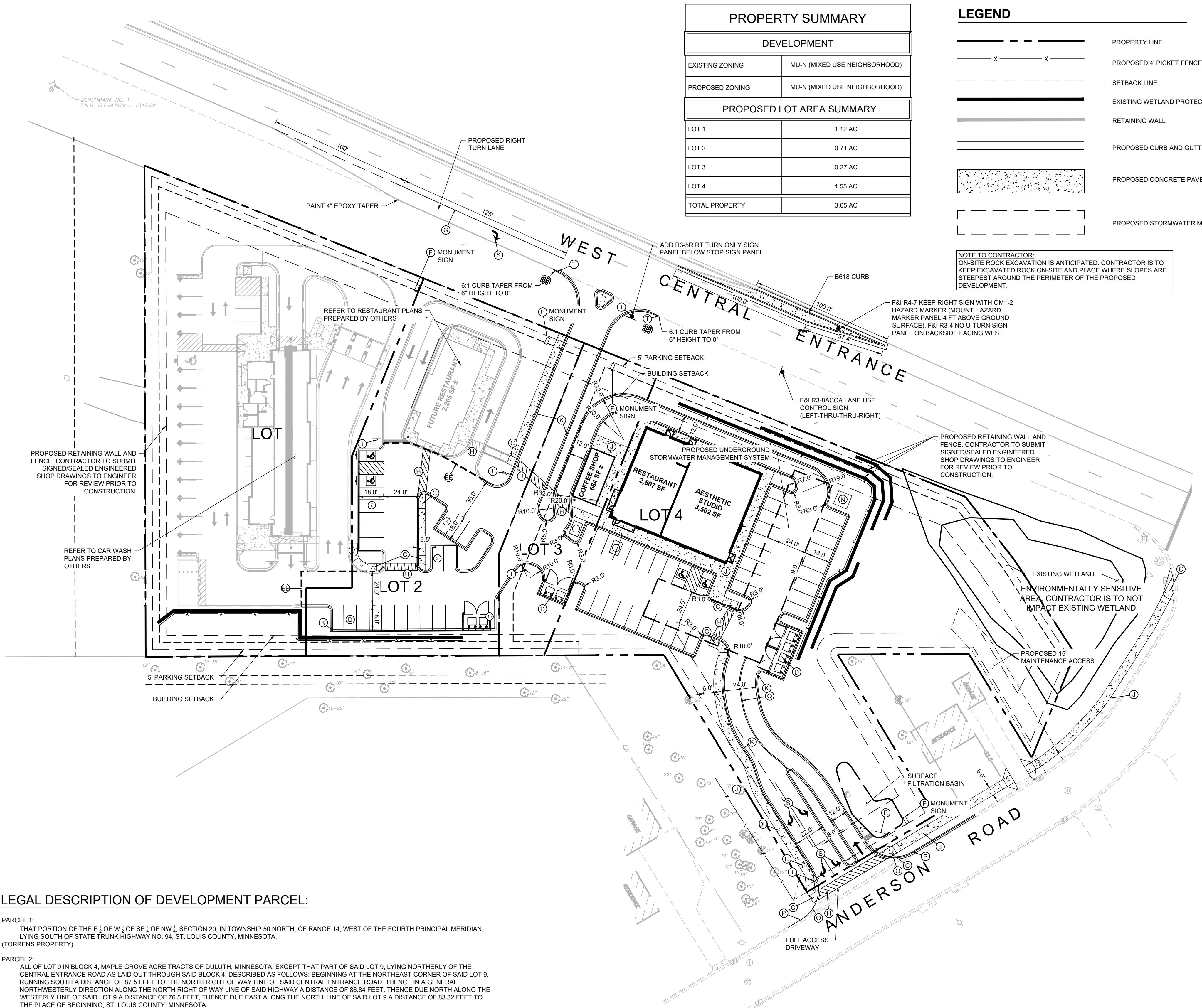




PL 23-038
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Site Map



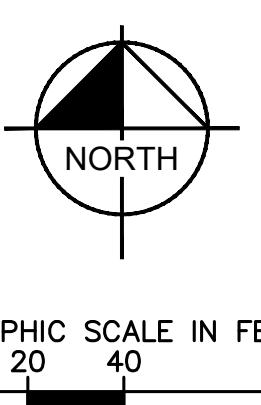


KEYNOTE LEGEND

- (A) ACCESSIBLE STALL
- (B) ACCESSIBLE SIGN MOUNTED TO BUILDING WALL
- (C) CURB RAMP: PROVIDE PEDESTRIAN RAMP WITH PAINTED TRUNCATED DOMES
- (D) DUMPSTER ENCLOSURE. REF ARCH PLANS
- (E) 20' SITE TRIANGLE
- (F) GENERAL LOCATION OF MONUMENT/ PYLON/ PROJECT SIGNS. REF ARCH PLANS. LOCATION PROVIDED FOR REFERENCE ONLY EXACT LOCATION OF SIGN TO BE PROVIDED WITH SIGN PERMIT
- (G) PAVEMENT MARKING, 4" SOLID WHITE (TYP.)
- (H) PEDESTRIAN CROSSWALK.
- (I) STOP SIGN
- (J) CONCRETE SIDEWALK
- (K) B618 CURB AND GUTTER
- (L) PROPOSED STAIRS WITH RAILING
- (M) THICKENED EDGE SIDEWALK AND 4' FENCE
- (N) TRANSFORMER PAD. COORDINATE WITH MNPOWER
- (O) TRANSITION TO B618 CURB AND GUTTER
- (P) MATCH TO EXISTING B618 CURB AND GUTTER
- (Q) PAVEMENT MARKING; 4" DOUBLE YELLOW SOLID LINE
- (R) NOT USED
- (S) DIRECTIONAL PAVEMENT MARKING
- (T) MATCH EDGE OF PAVEMENT/FLUSH
- (U) LIMITS OF ASPHALT PAVING
- (V) "CHUCK AND DON'S PARKING ONLY" SIGN MOUNTED TO BUILDING
- (W) "COMPACT CARS ONLY" SIGN
- (X) 4" SOLID YELLOW STRIPING 2' O.C. AT 45°
- (Y) CONCRETE WHEEL STOP
- (Z) NOT USED
- (AA) BIKE RACK
- (BB) PAVEMENT MARKING: 6" SINGLE WHITE SOLID LINE
- (CC) FLUSH CURB AND GUTTER
- (DD) 4' STEEL PICKET FENCE
- (EE) PAVEMENT LIMITS
- (FF) LIMITS OF UNDERGROUND FILTRATION SYSTEM
- (GG) COMPACT CAR PARKING SIGN
- (HH) DO NOT ENTER SIGN

CODE REQUIREMENTS SUMMARY

PERVIOUS/PARKING SUMMARY		
		COMPLIANCE
INTERIOR PERVIOUS AREA	15% PERVIOUS FOR 50 SPACES OR MORE	YES; PROPOSING +/- 18% AT BUILD-OUT
INTERIOR LANDSCAPE AREA WIDTH	MINIMUM 8' WIDTH	YES
COMMERCIAL-RESIDENTIAL BUFFER	MINIMUM 15' LANDSCAPE BUFFER ON SHARED BORDER OR FENCE	YES, PROPOSING LANDSCAPE BUFFER
PARKING STALL SIZE	COMPACT: 8.5'X15' STANDARD: 9'X17'	YES
MAX. ALLOWABLE COMPACT STALLS	45% FOR 100- 149 PROPOSED STALLS	YES, PROPOSING +/- 13.28% AT BUILD-OUT
RETAIL PARKING	3 SPACES/ 1,000 SF	YES
RESTAURANT PARKING	6.5 SPACES/ 1,000 SF	YES
SETBACKS SUMMARY		
BUILDING		
SIDE (EAST)	15'	YES
SIDE (WEST)	15'	YES
REAR	25'	YES
STREET FRONTAGE LANDSCAPE		
FRONT	AVERAGE 15'	YES
SIDE	AVERAGE 10'	YES
REAR	AVERAGE 5' ON LOT LINES OF DOUBLE FRONTAGE	YES
SIDEWALK		
SIDEWALK WIDTH	5' MINIMUM WIDTH	YES



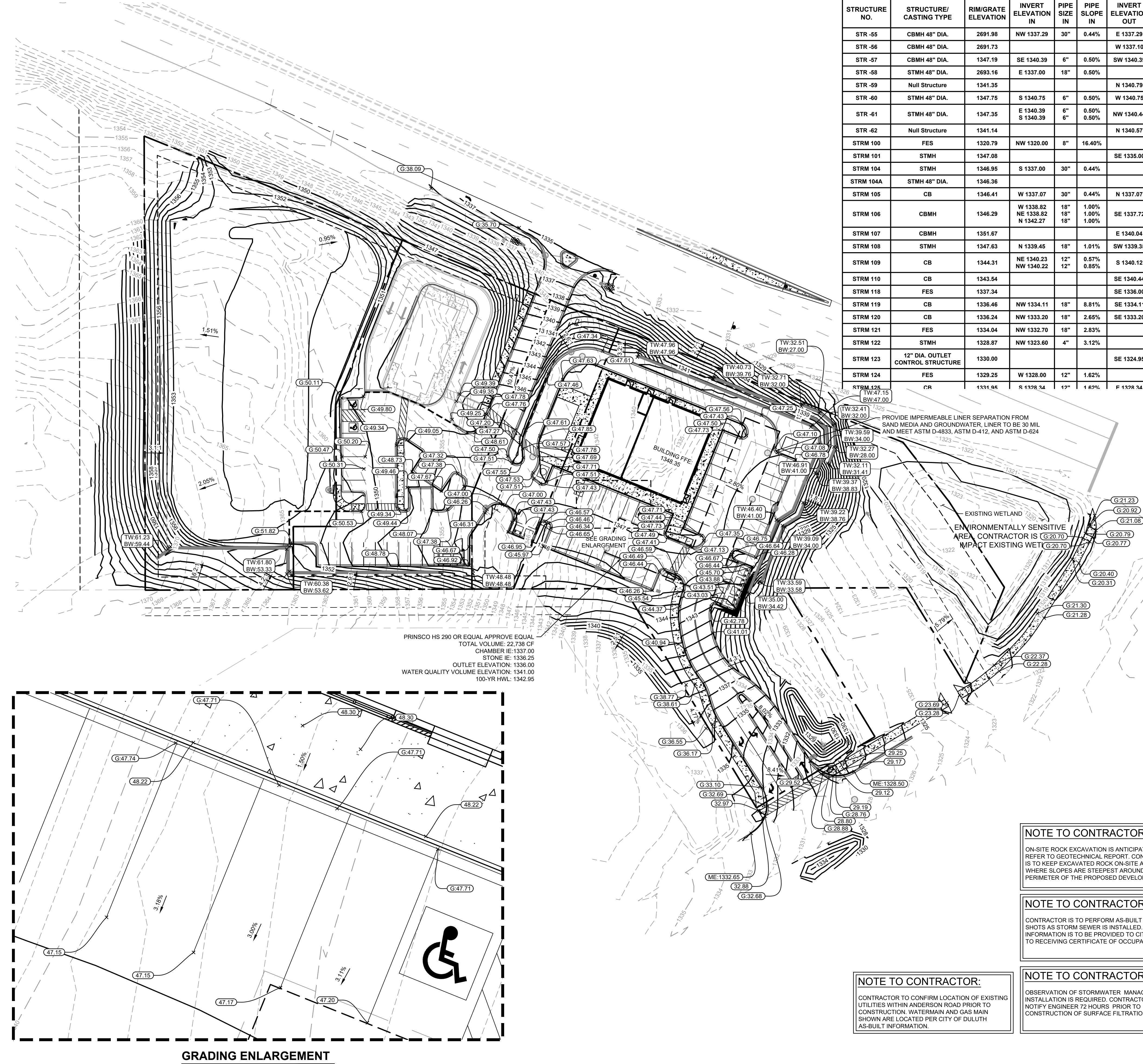
THE JIGSAW
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PROPERTIES
DULUTH

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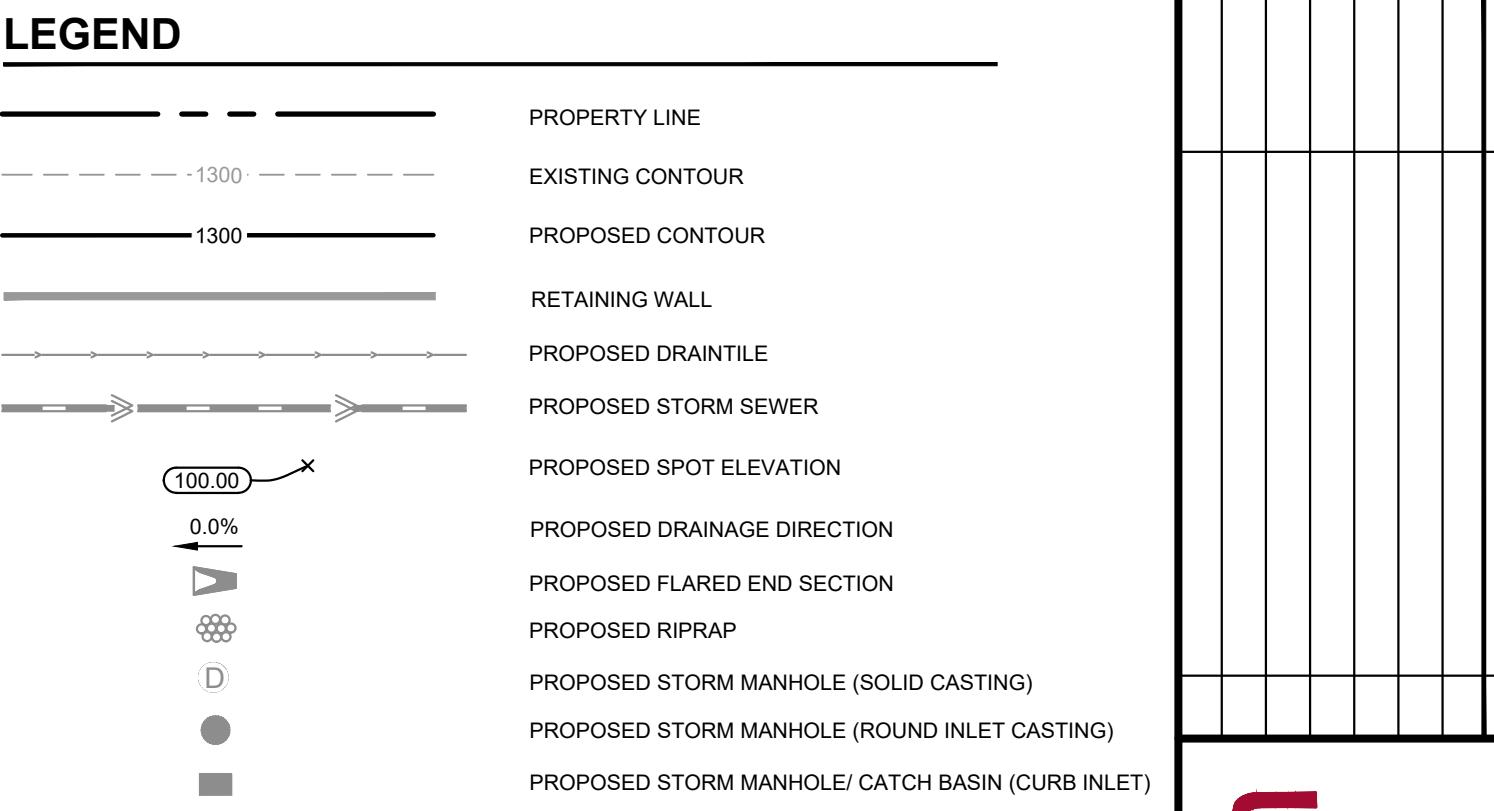
Kimley Horn

Brian M. Wurdeman, P.E.
DATE: 12/06/2022
INC. NO. 53113

SHEET NUMBER
C3.0

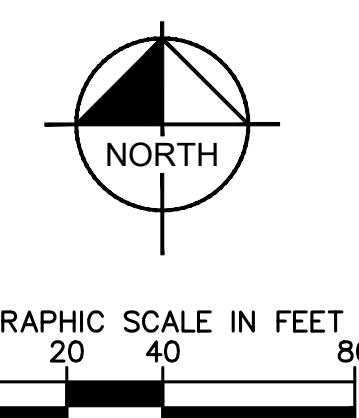


DRAINAGE SCHEDULE								
STRUCTURE NO.	STRUCTURE/CASTING TYPE	RIM/GRATE ELEVATION	INVERT ELEVATION IN	PIPE SLOPE IN	INVERT ELEVATION OUT	PIPE SIZE OUT	PIPE SLOPE OUT	SUMP
STR -55	CBMH 48" DIA.	2691.98	NW 1337.29	30"	0.44%	E 1337.29	30"	0.44%
STR -56	CBMH 48" DIA.	2691.73				W 1337.10	18"	0.50%
STR -57	CBMH 48" DIA.	1347.19	SE 1340.39	6"	0.50%	SW 1340.39	12"	0.57%
STR -58	STMH 48" DIA.	2693.16	E 1337.00	18"	0.50%			
STR -59	Null Structure	1341.35				N 1340.79	6"	0.50%
STR -60	STMH 48" DIA.	1347.75	S 1340.75	6"	0.50%	W 1340.75	6"	0.50%
STR -61	STMH 48" DIA.	1347.35	E 1340.39 S 1340.39	6"	0.50%	NW 1340.44	6"	0.50%
STR -62	Null Structure	1341.14				N 1340.57	6"	0.50%
STRM 100	FES	1320.79	NW 1320.00	8"	16.40%			
STRM 101	STMH	1347.08				SE 1335.00	8"	16.40%
STRM 104	STMH	1346.95	S 1337.00	30"	0.44%			
STRM 104A	STMH 48" DIA.	1346.36						
STRM 105	CB	1346.41				W 1338.82	18"	1.00%
STRM 106	CBMH	1346.29	NE 1338.82 NW 1342.27	18"	1.00%	SE 1337.72	30"	0.44%
STRM 107	CBMH	1351.67				E 1340.04	18"	1.00%
STRM 108	STMH	1347.63	N 1339.45	18"	1.01%	SW 1339.35	18"	1.00%
STRM 109	CB	1344.31	NE 1340.23 NW 1340.22	12"	0.57%	S 1340.12	18"	1.01%
STRM 110	CB	1343.54				SE 1340.44	12"	0.85%
STRM 118	FES	1337.34				SE 1336.00	18"	8.81%
STRM 119	CB	1336.46	NW 1334.11	18"	8.81%	SE 1334.11	18"	2.65%
STRM 120	CB	1336.24	NW 1333.20	18"	2.65%	SE 1333.20	18"	2.83%
STRM 121	FES	1334.04	NW 1332.70	18"	2.83%			
STRM 122	STMH	1328.87	NW 1323.80	4"	3.12%			
STRM 123	12" DIA. OUTLET CONTROL STRUCTURE	1330.00				SE 1324.95	4"	3.12%
STRM 124	FES	1329.25	W 1328.00	12"	1.62%			
STRM 125	CR	1331.95	S 1328.34	12"	1.62%	F 1328.34	12"	1.62%



GRADING PLAN NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF DULUTH, SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
- CONTRACTOR TO CALL GOPHER STATE CALL ONE @ 1-800-252-1166 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
- SITE STORM SEWER PIPE SHALL BE AS FOLLOWS:
 RCP PER ASTM C-76
 HDPE 0" - 10" PER ASHTO M-252
 POLYPROPYLENE PIPE 12" OR GREATER PER AASHTO M330 AND MNDOT 2451.3D
 PVC SCH. 40 PER ASTM D-3034
- SITE STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
 RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443
 HDPE PER ASTM D-3212
 POLYPROPYLENE PER ASHTO M330
 PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
- WITHIN MNDOT PUBLIC ROW STORM SEWER PIPE SHALL BE AS FOLLOWS:
 RCP PER ASTM C-76
 HDPE 0" - 10" PER ASHTO M-252
 POLYPROPYLENE PIPE 12" OR GREATER PER AASHTO M330 AND MNDOT 2451.3D
 PVC SCH. 40 PER ASTM D-3034
- WITHIN MNDOT PUBLIC ROW STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
 RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443
 HDPE PER ASTM D-3212
 POLYPROPYLENE PER ASHTO M330
 PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
- CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
- SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
- CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
- GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
- ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
- REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE NOTATION.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES TO PROVIDE POSITIVE DRAINAGE.
- INSTALL A MINIMUM OF 4" CLASS 5 AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
- UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
- ALL SPOT ELEVATIONS/CONTOURS ARE TO GUTTER / FLOW LINE UNLESS OTHERWISE NOTED.
- GRADING FOR ALL ON SITE SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED VERTICAL 1:12 HORIZONTAL, AND NO CASE SHALL ON SITE SIDEWALK CROSS SLOPES EXCEED 2% IN CASE OF SIDEWALKS ALONG ALL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. COMPLIANCE ISSUES.
- MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
- CONTRACTOR TO PROVIDE 3" INSULATION BY 5' WIDE CENTERED ON STORM PIPE IF LESS THAN 4' OF COVER IN PAVEMENT AREAS AND LESS THAN 3' OF COVER IN LANDSCAPE AREAS.
- ROOF DRAIN INVERT CONNECTIONS AT THE BUILDING SHALL BE AT ELEVATION 1304.68 OR LOWER UNLESS NOTED OTHERWISE. REFERENCE MEP PLANS FOR ROOF DRAIN CONNECTION.
- ALL STORM SEWER CONNECTIONS SHALL BE GASKETED AND WATER TIGHT INCLUDING MANHOLE CONNECTIONS.
- ALL STORM SEWER PIPE SHALL BE AIR TESTED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
- MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
- CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "INFALL CURB" WHERE PAVEMENT DRAINS TOWARD GUTTER, AND "OUTFALL" CURB WHERE PAVEMENT DRAINS AWAY FROM GUTTER.



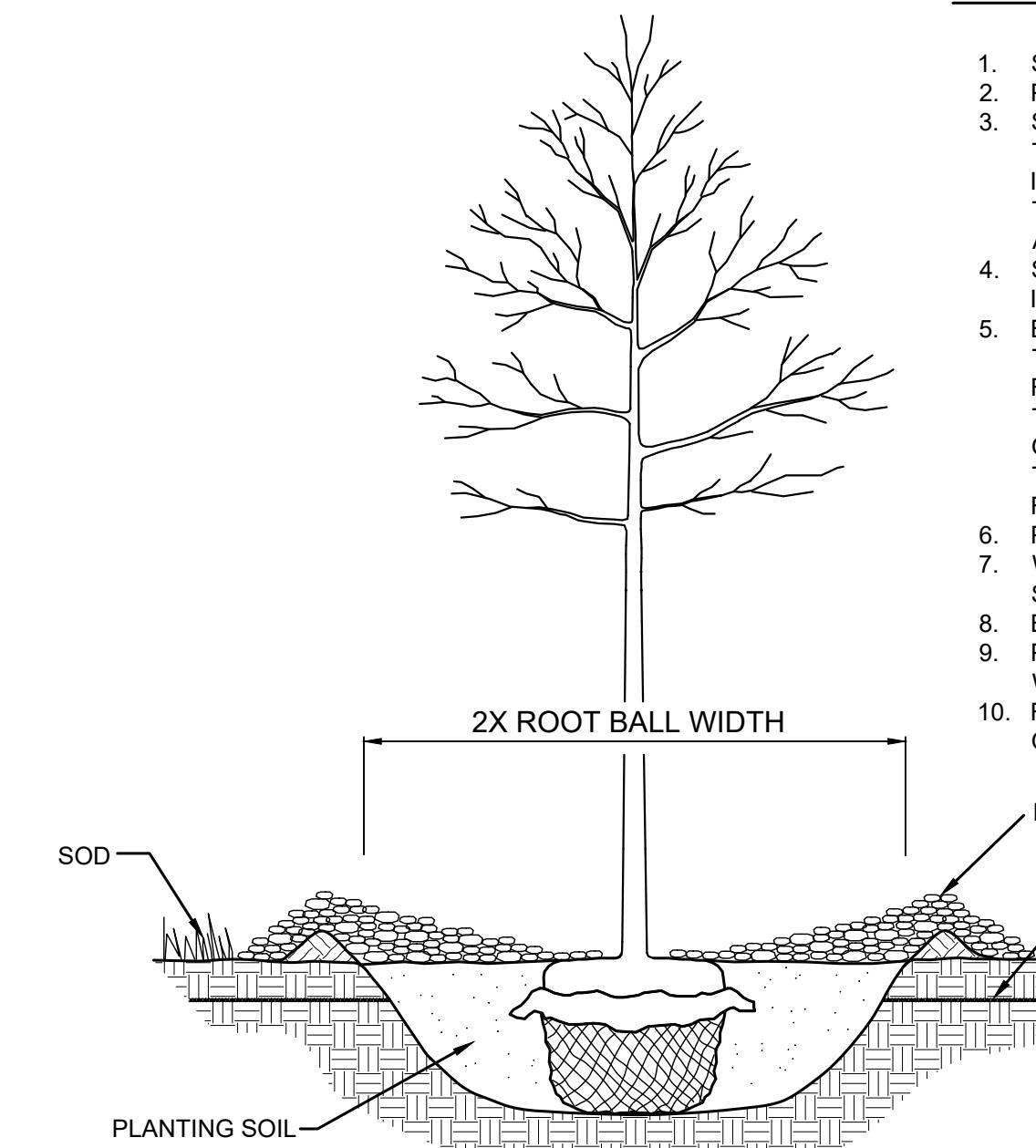
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Kimley-Horn

I HEREBY CERTIFY THAT THE PLAN
HEREIN HAS BEEN DRAWN, SUPERVISED, AND
MADE UNDER MY DIRECT SUPERVISION
AND THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF
MINNESOTA.
 Brian M. Wurdeman, P.E.
 DATE: 02/21/2018
 MN. NO. 53113
 DRAWN BY: ACL
 CHECKED BY: EMW
 DESIGNED BY: ACL
 KHA PROJECT: 180734013
 DATE: 12/06/2022
 SCALE: AS SHOWN
 SHEET NUMBER: C4.0

GRADING PLAN

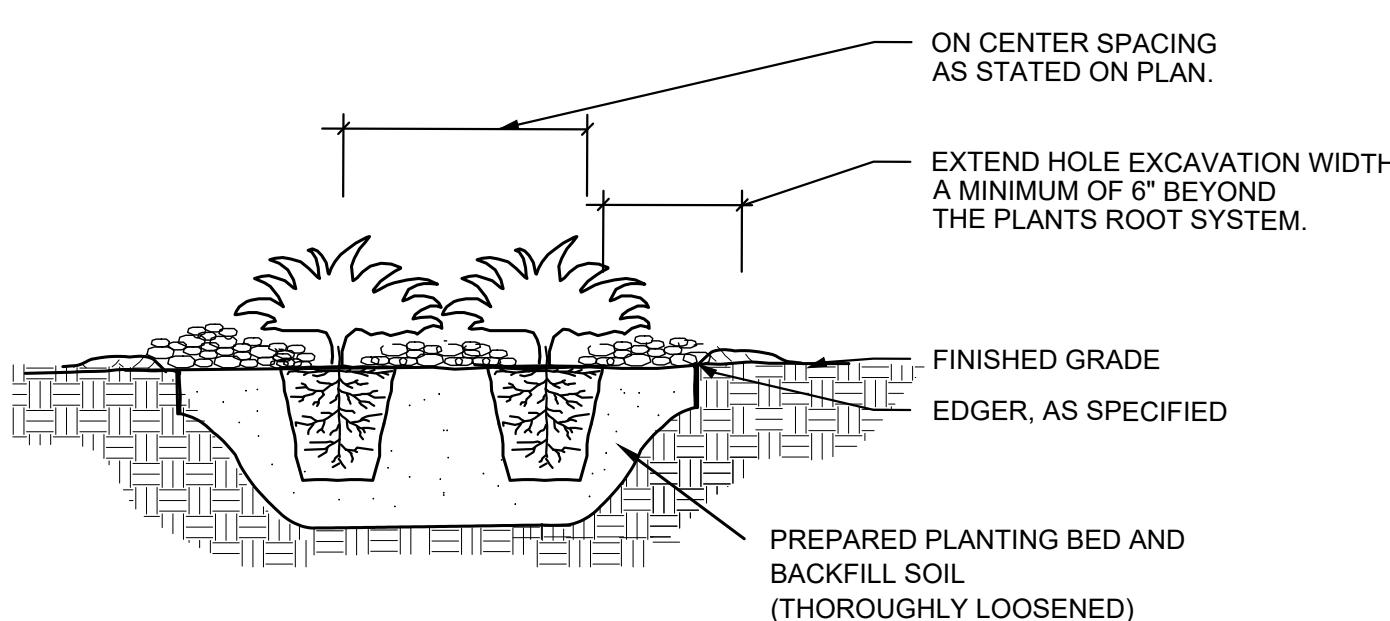


1 TREE PLANTING DETAIL

SCALE: N.T.S.

NOTES:

1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING.
3. SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL.
4. INSTALL PLANT SO THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE WITH BURLAP AND WIRE BASKET, (IF USED), INTACT.
5. SLIT REMAINING TREATED BURLAP AT 6" INTERVALS.
6. BACKFILL TO WITHIN APPROXIMATELY 12" OF THE TOP OF THE ROOTBALL, THEN WATER PLANT.
7. REMOVE THE TOP 1/3 OF THE BASKET OR THE TOP TWO HORIZONTAL RINGS WHICHEVER IS GREATER. REMOVE ALL BURLAP AND NAILS FROM THE TOP 1/3 OF THE BALL. REMOVE ALL TWINE.
8. REMOVE OR CORRECT STEM GIRDLING ROOTS.
9. PLUMB AND BACKFILL WITH PLANTING SOIL.
10. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
11. BACK FILL VOIDS AND WATER SECOND TIME.
12. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.
13. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.

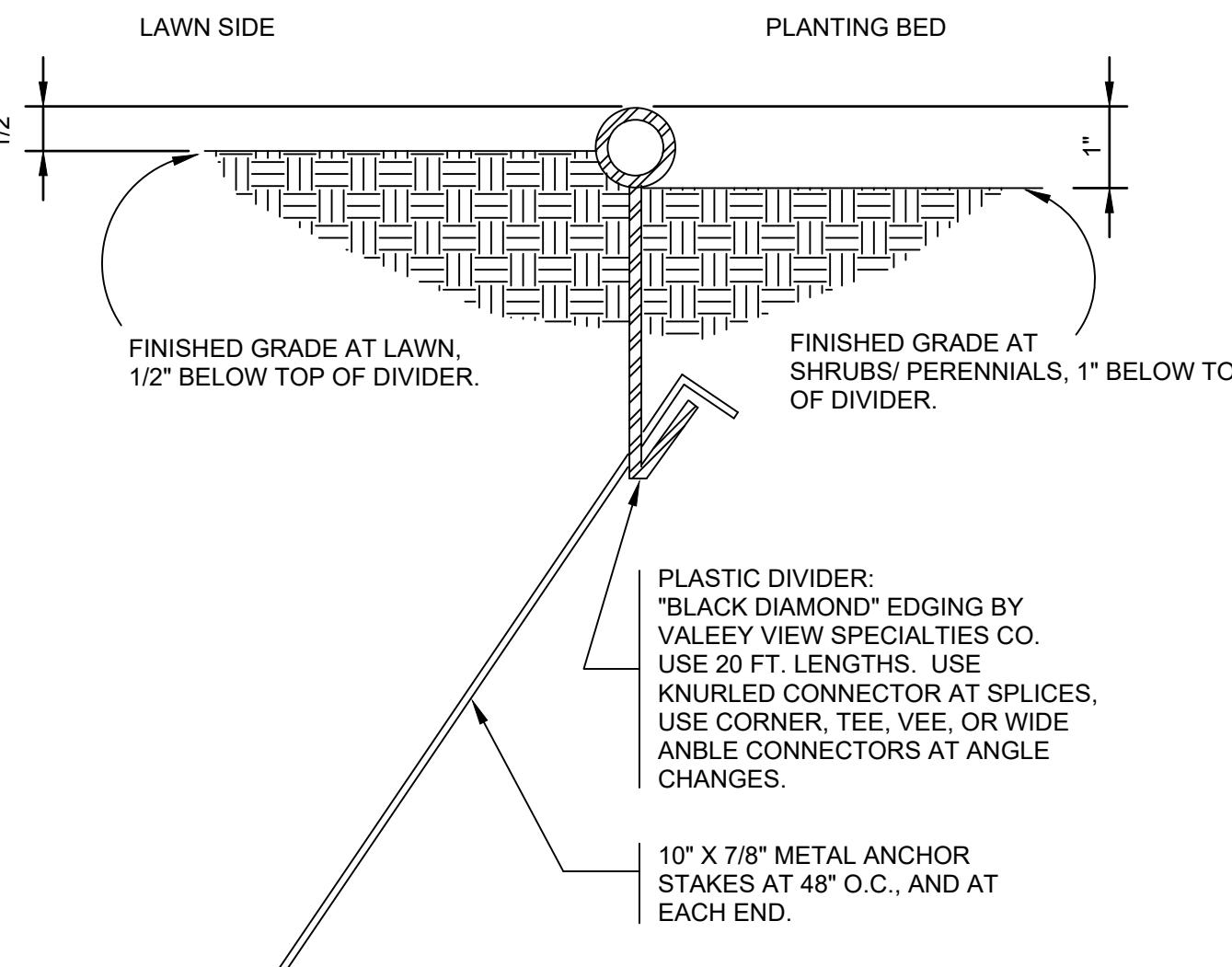


2 SHRUB / PERENNIAL PLANTING DETAIL

SCALE: N.T.S.

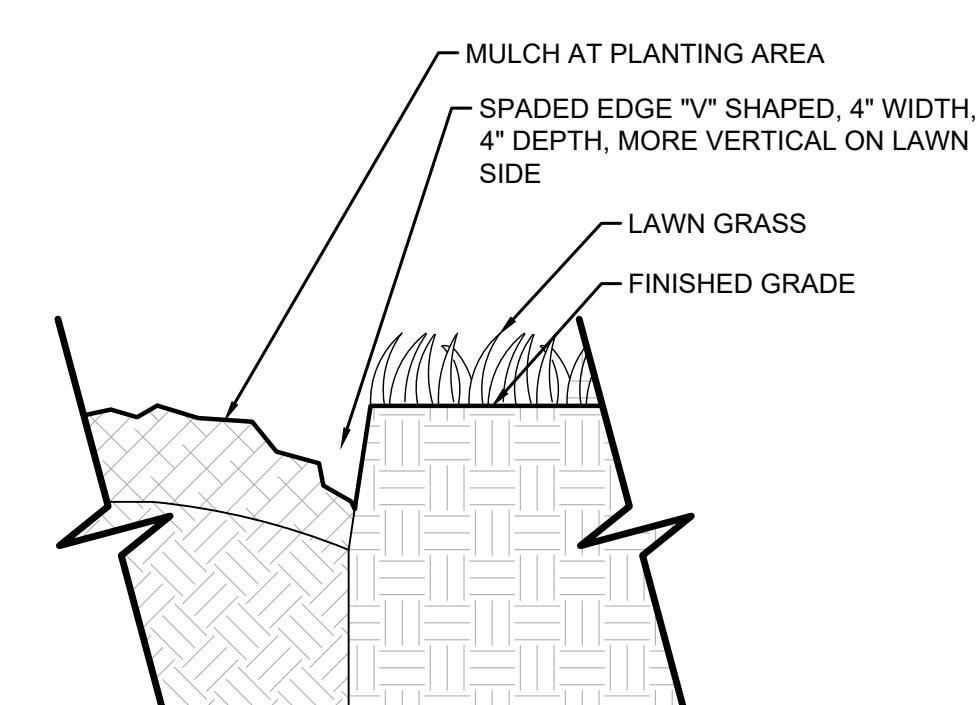
NOTES:

1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING OF TOP AND ROOT.
3. REMOVE CONTAINER AND SCORE OUTSIDE OF SOIL MASS TO REDIRECT AND PREVENT CIRCLING FIBROUS ROOTS. REMOVE OR CORRECT STEM GIRDLING ROOTS.
4. PLUMB AND BACKFILL WITH PLANTING SOIL.
5. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
6. BACK FILL VOIDS AND WATER SECOND TIME.
7. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.
8. MIX IN 3-4" OF ORGANIC COMPOST.



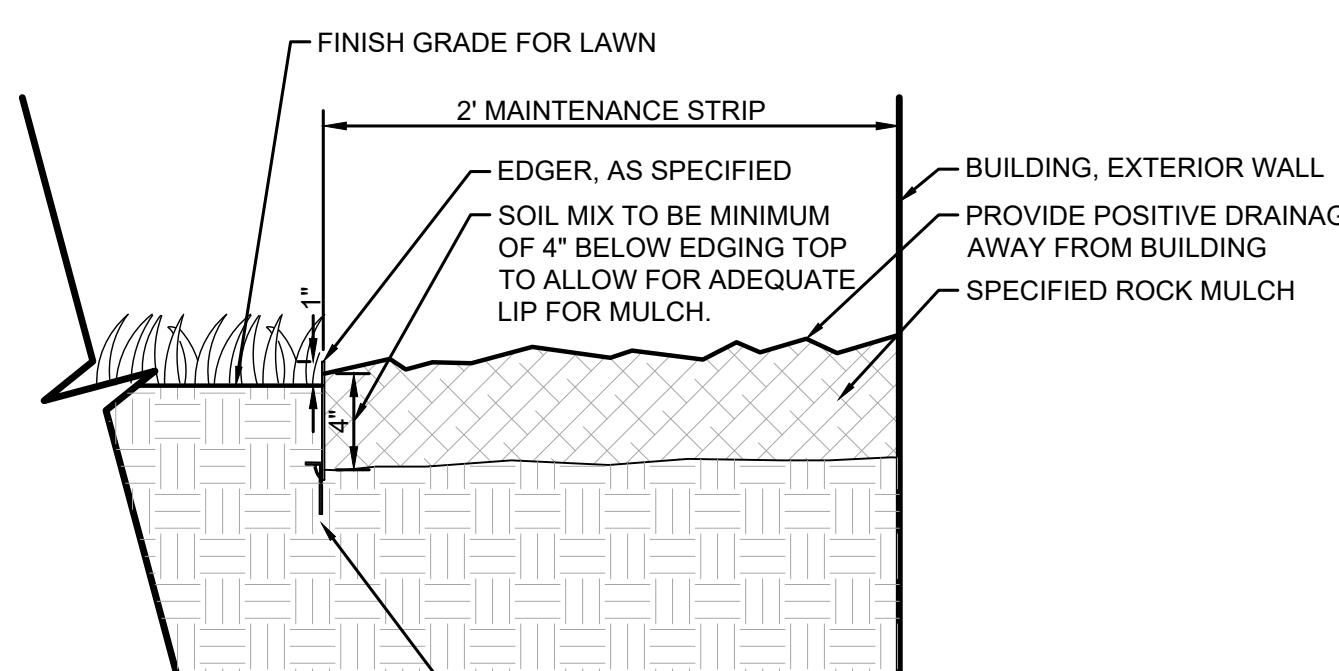
3 POLY EDGER DETAIL

SCALE: N.T.S.



4 SPADED EDGE DETAIL

SCALE: 1-1/2"=1"



5 MAINTENANCE STRIP DETAIL

SCALE: 1-1/2"=1"

LANDSCAPE NOTES

1. CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL 811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
6. ALL PLANTS TO BE SPECIMEN GRADE, MINNESOTA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.

7. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
8. PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
9. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
10. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
11. OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
12. PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
13. WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
14. STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
15. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
16. BACKFILL SOIL AND TOPSOIL TO ADHERE TO MN/DOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
17. MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 4" DEPTH OF DOUBLE SHREDDED HARDWOOD MULCH. DOUBLE SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 2" DEPTH DOUBLE SHREDDED HARDWOOD MULCH. MULCH TO BE FREE OF DELETERIOUS MATERIAL AND COLORED DARK BROWN, OR APPROVED EQUAL ROCK MULCH TO BE DARK GREY TRAP ROCK, 1 1/2" TO 3" DIAMETER, AT MINIMUM 3" DEPTH, OR APPROVED EQUAL ROCK MULCH TO BE ON COMMERCIAL GRADE FILTER FABRIC, BY TYPAR, OR APPROVED EQUAL WITH NO EXPOSURE. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
18. EDGING TO BE COMMERCIAL GRADE VALLEY-VIEW BLACK DIAMOND (OR EQUAL) POLY EDGING OR SPADED EDGE, AS INDICATED. POLY EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN 4 FOOT ON CENTER WITH BASE OF TOP BEAD AT GRADE, FOR MOWERS TO CUT ABOVE WITHOUT DAMAGE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE. EDGING TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
19. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. SOD TO BE STANDARD MINNESOTA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MN/DOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.

20. PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.
21. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
22. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.
23. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
24. MAINTAIN TREES, SHRUBS, AND OTHER PLANTS UNTIL PROJECT COMPLETION, BUT IN NO CASE, LESS THAN FOLLOWING PERIOD: 1 YEAR AFTER PROJECT COMPLETION. MAINTAIN TREES, SHRUBS, AND OTHER PLANTS BY PRUNING, CULTIVATING, AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE. REPLENISH MULCH TO THE REQUIRED DEPTH. MAINTAIN LAWNS FOR 45 DAYS AFTER INSTALLING SOD INCLUDING MOWING WHEN SOD RECITES 4" IN HEIGHT. WEED PLANTING BEDS AND MULCH SAUCERS AT MINIMUM ONCE A MONTH DURING THE GROWING SEASON. PROVIDE A MONTHLY REPORT TO THE OWNER ON WEEDING AND OTHER MAINTENANCE RESPONSIBILITIES.

Kimley-Horn
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767 EASTUSTIN ST, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

LANDSCAPE DETAILS

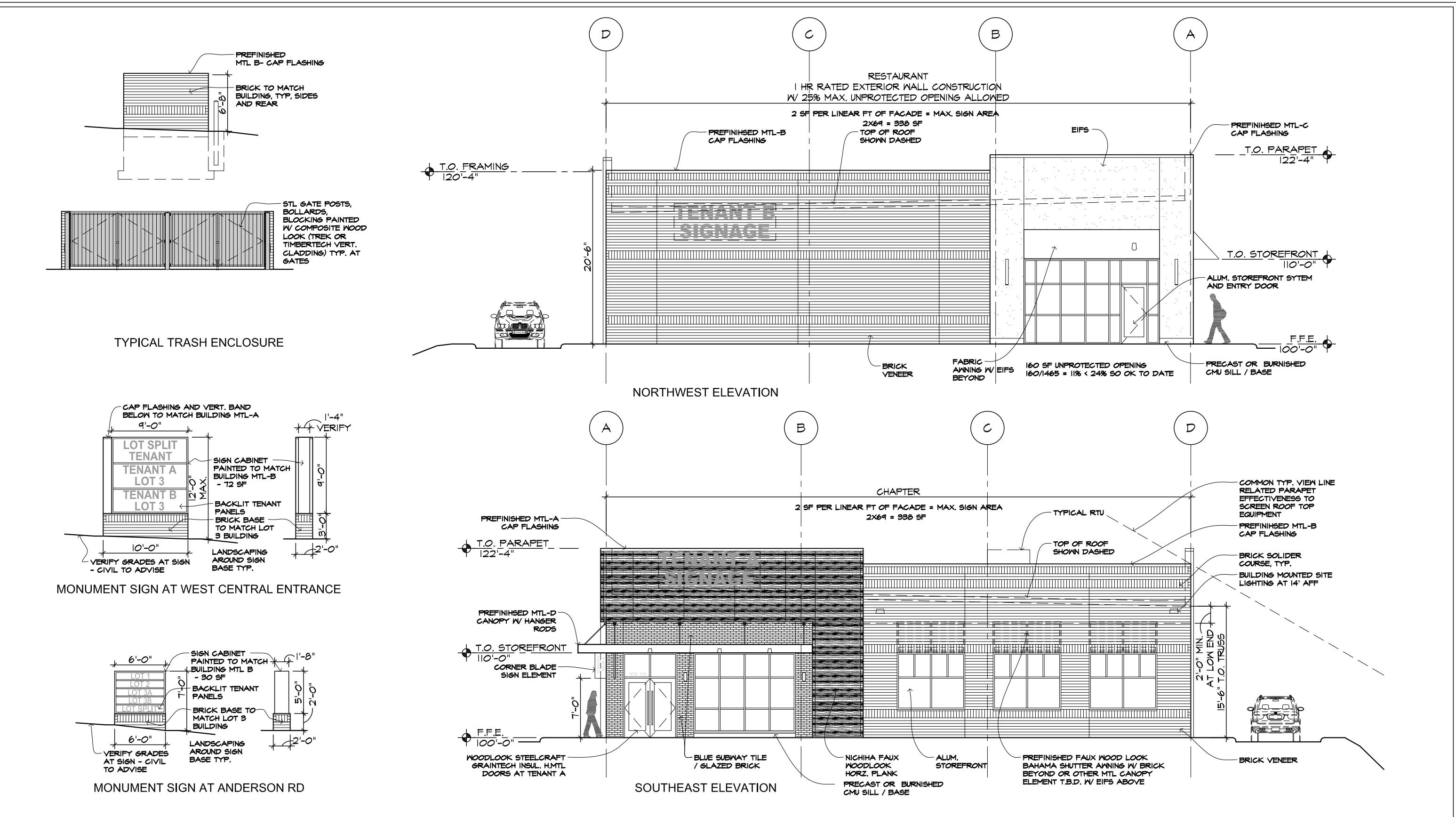
THE JIGSAW LAUNCH PROPERTIES
DULUTH

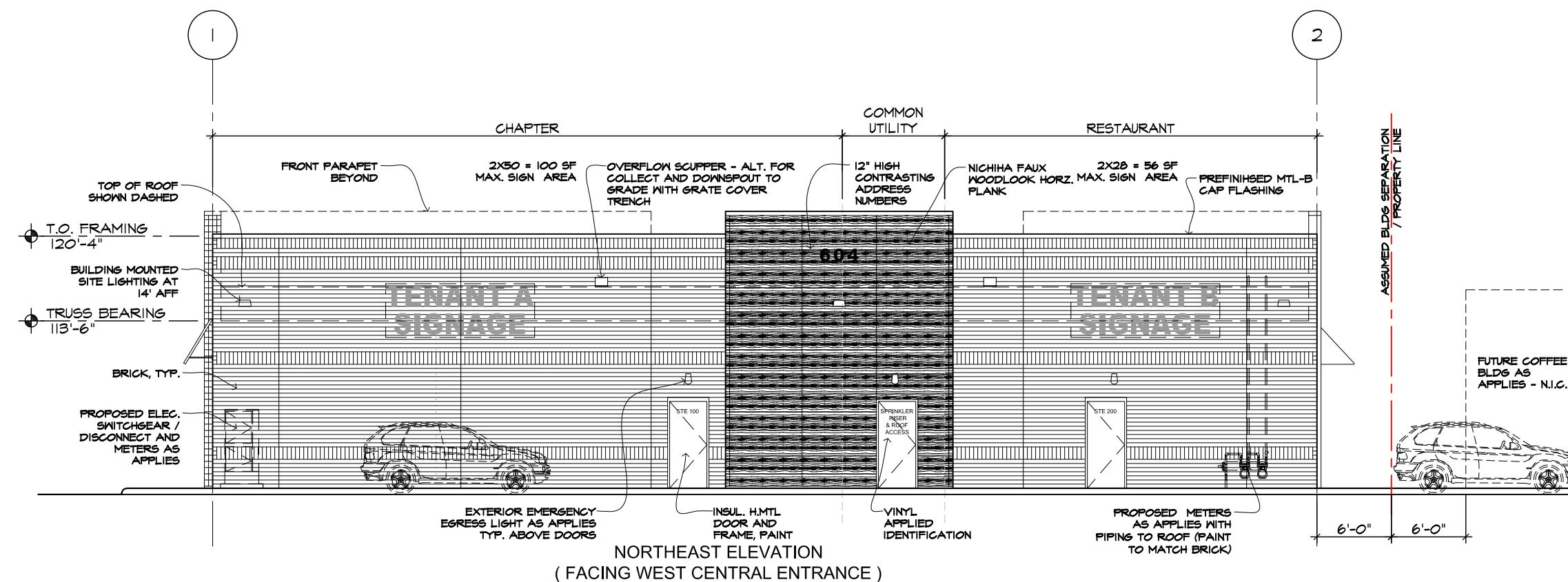
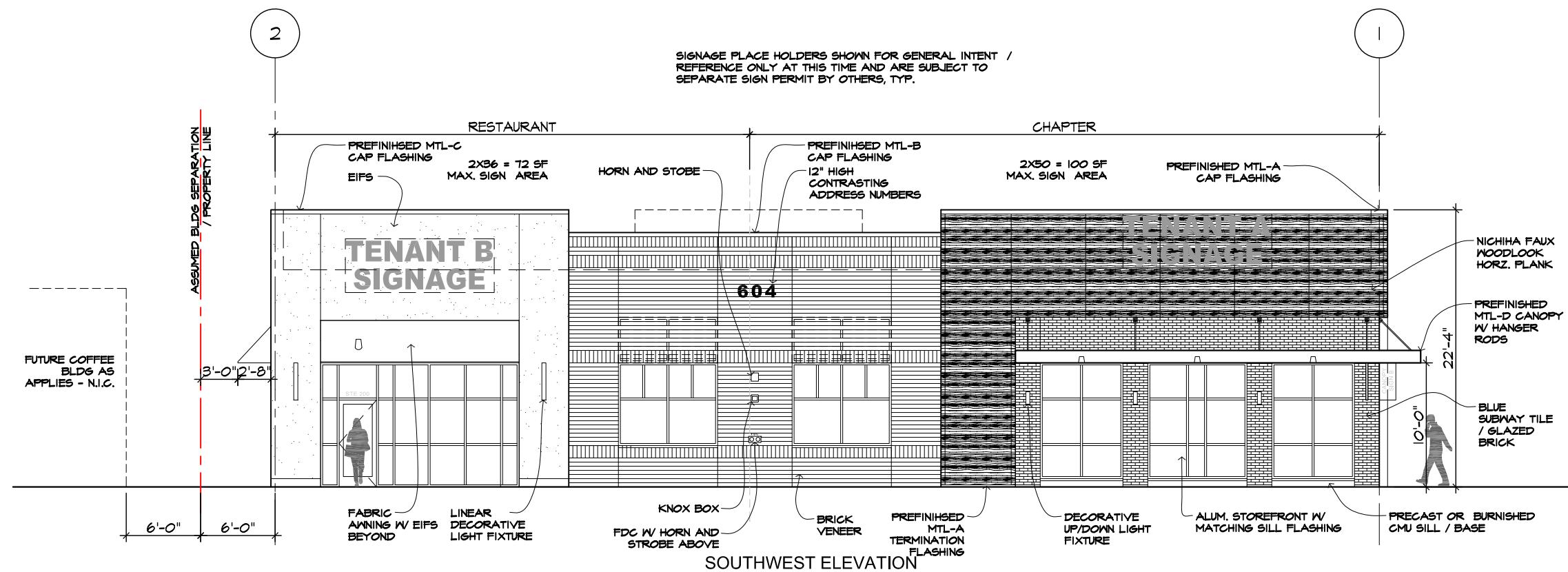
SHEET NUMBER
L1.1

LANDSCAPE NOTES

I HEREBY CERTIFY THAT THIS PLAN
IS PREPARED AND DRAWN
BY ME OR UNDER MY DIRECT SUPERVISION
AND THAT I AM A DULY LICENSED PROFESSIONAL
LANDSCAPE ARCHITECT REGISTERED UNDER THE LAWS OF
THE STATE OF MINNESOTA.
RYAN A. HYLLESLET P.L.A.
DATE: 12/06/2022
INC. NO. 53828

KHA PROJECT
180734013
DATE
12/06/2022
SCALE
AS SHOWN
DESIGNED BY
MPI
DRAWN BY
MPI
CHECKED BY
RAJH
DATE: 12/06/2022
MN







MEMORANDUM

Date: December 5, 2022

To: Launch Properties

From: Jacob Rojer, P.E., PTOE
Brian Wurdeman, P.E.

Subject: Launch Properties Jigsaw Site – Trip Generation Memo
W Central Entrance at Anderson Road, Duluth, MN

INTRODUCTION

Launch Properties is proposing to develop an +/- 3.77-acre site located on the southwest corner of W Central Entrance and Anderson Road in Duluth, MN. This memorandum will discuss the trip generation of the site and compare it to the initial Traffic Impact Analysis completed in 2018.

2018 TRAFFIC STUDY TRIP GENERATION

The trip generation for the 2018 proposed development was prepared based on information provided in the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition. For each of the land use categories, the average rate for the peak hour of the adjacent street was used. Trips related to the 7,500 SF of retail space were generated using Land Use Code (LUC) 820, Shopping Center. The 2,100 SF of restaurant space with the drive-through window was considered LUC 937 (Coffee/Donut Shop with Drive-Through Window) based on the proposed tenant. The remaining 7,600 SF of restaurant space was considered LUC 930 (Fast Casual Restaurant). Internal capture was applied to the forecasted trip generation to account for shared trips and trips that are already on the roadway network, and was calculated consistent with ITE's Trip Generation Handbook, 3rd Edition. Internal capture was calculated between the retail and restaurant uses. Pass-by for the coffee shop was calculated based on rates for the fast-food with drive-through land use. Pass-by for the other restaurants was calculated based on rates for a high-turnover (sit-down) restaurant. **Table 1** provides a summary of the trip generation calculation.

Table 1: 2018- Traffic Study Proposed Site Trip Generation

Land Use Description	Intensity	PM Peak Hour		
		In	Out	Total
Shopping Center (ITE 820)	7,500 SF	13	15	28
Fast Casual Restaurant (ITE 930)	7,600 SF	60	49	109
Coffee/Donut Shop with Drive-Through Window (ITE 937)	2,100 SF	46	46	92
Total Traffic		119	110	229
<i>Retail Internal Capture Reduction</i>		-7	-4	-11
<i>Restaurant Internal Capture Reduction</i>		-4	-7	-11
Total Driveway Traffic		108	99	207
<i>Retail Pass-By Capture (34%)</i>		-2	-2	-4
<i>Restaurant Pass-By Capture (43%)</i>		-25	-25	-50
<i>Coffee Shop Pass-By Capture (50%)</i>		-22	-22	-44
Net New Vehicle Trips		59	50	109

PROPOSED TRIP GENERATION

The trip generation for proposed development has been prepared based on information provided in the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition. For each of the land use categories, the average rate for the peak hour of the adjacent street was used. Trips related to the 3,502 SF for Chapter Aesthetic Studio were generated using Land Use Code (LUC) 822, Strip Retail Plaza (<40k). The 2,507 SF of restaurant space without the drive-through was considered using LUC 933 (Fast Food Restaurant w/o Drive-Through) and the 2,265 SF of restaurant with the drive-through window was considered LUC 934 (Fast Food Restaurant with Drive-Through) based on the proposed tenant. 600 SF of drive thru coffee was considered using LUC 937 (Coffee/Donut Shop with Drive-Through Window) and a 1 tunnel automatic car wash was considered using LUC 948 (Automated Car Wash). Internal capture was applied to the forecasted trip generation to account for shared trips and trips that are already on the roadway network, and was calculated consistent with ITE's Trip Generation Handbook, 3rd Edition. Internal capture was calculated between the retail and restaurant uses. Pass-by for the coffee shop was calculated based on rates for the fast-food with drive-through land use to remain consistent with the original 2018 traffic study. Pass-by for the other restaurants was calculated based on rates for a high-turnover (sit-down) restaurant. **Table 2** provides a summary of the trip generation calculation.

Table 2: Proposed Site Trip Generation

Land Use	Intensity	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
Strip Retail Plaza (<40k) (ITE 822)	3,502 SF	8	5	3	23	11	12
Fast Food w/o Drive-Through (ITE 933)	2,507 SF	-	-	-	83	42	41
Fast Food with Drive-Through (ITE 934)	2,265 SF	101	52	49	75	39	36
Coffee/Donut Shop with Drive-Through (ITE 937)	600 SF	52	27	25	23	12	11
Automated Car Wash (ITE 948)	1 Tunnel	-	-	-	78	39	39
<u>Total Trips</u>			<u>161</u>	<u>84</u>	<u>77</u>	<u>282</u>	<u>143</u>
<i>Internal Capture Reduction</i>			0	0	0	-80	-40
<u>Total Driveway Traffic</u>			<u>161</u>	<u>84</u>	<u>77</u>	<u>202</u>	<u>103</u>
<i>Pass-By Capture</i>			-93	-48	-45	-49	-27
<u>Net New Vehicle Trips</u>			<u>68</u>	<u>36</u>	<u>32</u>	<u>153</u>	<u>76</u>

TRIP GENERATION COMPARISON

The previous 2018 traffic study only analyzed PM peak hour trips. **Table 3** shows a comparison of the 2018 assumed land uses and the proposed land uses. It is anticipated that the proposed site will generate a similar number of trips in the PM peak hours as the 2018 traffic study. All recommendations and conclusions from the 2018 Traffic Study remain valid for the site.

Table 3: Proposed Site Trip Generation Comparison

Scenario	AM Peak Hour			PM Peak Hour		
	Total	In	Out	Total	In	Out
Proposed Site Driveway Trips	161	84	77	202	103	99
2018 Traffic Study Driveway Trips	-	-	-	207	108	99
Change in Trips	N/A	N/A	N/A	-5	-5	0