

AGENDA

NEW BRIGHTON PLANNING COMMISSION REGULAR MEETING

**TUESDAY, JANUARY 15, 2013
7:00 P.M.**

1. Call to Order:

2. Roll Call:

____ **Bruce
Howard**

____ **Erin Nichols
Matkaiti**

____ **Michael
Shardlow**

____ **Verne
McPherson**

____ **Steve
Danger**

____ **Greg Meyers**

____ **Paul Banker**

3. Agenda Review

4. Approval of Minutes

(A) November 20, 2012

5. Report on Council Action: Gina Bauman, City Council Member

6. Commission Business

(A) Consideration of a Site Plan for Dental Properties, LLC, allowing for construction of a 7,556 SF dental office building and associated surface parking and other improvements at 850 County Road D West.

7. Adjourn: _____

PLANNING COMMISSION PROCEEDINGS

Regular Meeting – November 20, 2012 7:00 p.m.

Present: Chairperson Bruce Howard, Commissioners Paul Banker, Steve Danger, Erin Nichols-Matkaiti, Mike Shardlow, Greg Meyers, and Verne McPherson, Councilmember Gina Bauman

Absent: None

Also Present: Janice Gundlach-City Planner

Agenda Review: There were no changes to the agenda.

Minutes from September 18, 2012:

Motion by Commissioner Shardlow, seconded by Commissioner Nichols-Matkaiti, to approve the September 18, 2012 meeting minutes as presented.

Approved 7-0.

Council Action: Councilmember Bauman reported on the survey discussions noting the Council was reviewing what information should be gathered. She explained the Council was also discussing the maintenance of City and County property and how this affects the Parks and Recreation Department. She noted the Truth and Taxation meeting would be held on Tuesday, December 4, 2012 at 6:30 p.m. at City Hall in the Council Chambers.

Public Hearing:

- (A) City of New Brighton Parks and Recreation Department and Silver Tower Subs, Inc. – Daniel O'Bresky request consideration of a Special Use Permit concerning an amendment to the Civic Campus Comprehensive Sign Plan governing allowed signage at the Community Center and a parking exception concerning off-street parking at the Community Center located at 400 10th Street NW.

City Planner Janice Gundlach reported New Brighton Parks & Recreation staff has been in discussions for several months with Daniel O'Bresky (franchisee) regarding a new Subway shop to be located in the New Brighton Community Center (NBCC). While the City is the landlord and the lease will be dealt with separately, for zoning purposes the Parks and Recreation Department and Mr. O'Bresky are acting as co-applicants for this request. The New Brighton Community Center is somewhat of a unique facility because it includes a variety of public/private activities that each has their own demands, especially related to parking. The introduction of a fast food restaurant-type use that relies (in part) on existing NBCC patrons creates an unusual situation for a standard land use review – in some ways it falls into what is referred to as “special circumstance” under Chapter 11 (Parking Standards) of the Zoning Code. This section of the code addresses things like proof of parking, ride sharing, other uses (not specifically mentioned) and joint facilities.

Planner Gundlach reported in this case, the applicants are requesting consideration of the “other uses” category of Sec. 11-040 (4). This subsection allows the City to consider unique circumstances when evaluating the required amount of parking. Additional information is provided in the written staff report. This request does not require a public hearing.

Planner Gundlach indicated the applicants are also requesting an amendment to the existing Civic Campus Comprehensive Sign Plan concerning allowed permanent ground signage at the New Brighton Community Center. The New Brighton Parks & Recreation Department has prepared an amendment to the Sign Plan that would allow logos on ground signs, which isn't something that is presently allowed. Any amendment to the Civic Campus Comprehensive Sign Plan requires a Special Use Permit, which triggers a public hearing and notification of neighbors within 350 feet of the property.

Planner Gundlach explained the Community Center is zoned B-4, Downtown Business, and commercial uses (including restaurants) are permitted in this zoning district. The two requests outlined in the written report relate to parking and signage as a result of Subway occupying the Community Center. Staff recommends approval of the Special Use Permit concerning an amendment to the Civic Campus Comprehensive Sign Plan governing allowed signage at the Community Center and a parking exception concerning off-street parking at the Community Center located at 400 10th Street NW.

Commissioner McPherson asked if there would be a lease between Subway and the City. Planner Gundlach noted this would be reviewed by the City Council at a future date.

Commissioner Shardlow questioned if Subway would have any designated parking. Planner Gundlach stated it was her understanding there would be no designated parking. Parking for the Subway at Brighton Village was then discussed. Commissioner Banker inquired if the library was currently under parked. Planner Gundlach indicated the community center with a library was a unique facility. The parking was a concern initially; however the expanded overflow parking lot at the community center has alleviated this concern.

Chairperson Howard asked if the City has had any parking complaints since the library has relocated to the community center. Planner Gundlach was not aware of any complaints.

Commissioner Danger questioned how supplies would be delivered to Subway. Planner Gundlach deferred this question to the applicant. Dan O'Bresky, Subway representative, explained he operated several Subway franchises. He anticipated two deliveries would be made to this location each week. He indicated the receiving area was to the rear of the building and no drive aisles would be blocked during deliveries. No deliveries would be made between 11:30 a.m. and 1:30 p.m. Parks and Recreation Director Brewer commented all deliveries currently made to the Community Center were done through the south door. She explained deliveries would be addressed by the City through the lease agreement with Subway.

Denise Floe, 969 Old Steine Circle, asked if other Subway signs would be posted on the building. Planner Gundlach commented only the ground signs were proposed at this time. Mr. O'Bresky commented a sign would be inside the building near the sandwich shop. He discussed the hours of operation understanding that the hours could not exceed the Community Center building hours.

Commissioner Danger questioned if Subway was requesting additional seating. Parks and Recreation Director Brewer indicated the existing tables and chairs in the community center would be used by Subway patrons.

Commissioner Nichols-Matkaiti inquired if Subway agreed with the proposed signage colors. Mr. O'Bresky stated the font style was more of a concern than the color and he approved of the proposed signs.

Motion by Commissioner Nichols-Matkaiti, seconded by Commissioner Banker to close the Public Hearing.

Approved 7-0.

Motion by Commissioner McPherson, seconded by Commissioner Danger, to recommend the Council approve staff recommendations as submitted.

Approved 7-0.

- (B)** Joseph A. Wolkerstorfer on behalf of Wolkerstorfer Company Inc. requests consideration of a Site Plan and Nonconforming Use Permit concerning a 9,000 square foot building addition and associated off-street surface parking at 348 1st Street SW.

City Planner Janice Gundlach reported the applicant is requesting Site Plan and Nonconforming Use Permit approval in order to allow construction of a 9,000 SF addition to the existing industrial building located at 348 1st Street SW. The proposed addition would be single story and be located on the northeast side of the existing building. The proposed improvements do not include any additional off-street parking or drive areas. A Nonconforming Use Permit is necessary as the site does not contain enough off-street parking stalls to accommodate the size of the existing building. The applicant has proposed a proof of parking area, which includes enough stalls to meet minimum parking standards for the proposed 9,000 SF addition.

Planner Gundlach explained the nature of Wolkerstorfer's business is chemical processing, painting and anodizing, which requires large pieces of fixed equipment such as large processing tanks. Because of this, the ratio of workers to the floor plan is much less than a typical manufacturing use. Therefore, the businesses need for off-street parking is much less than one might expect, or the Zoning Code requires, based on the overall size of the building. The proposed addition will use this same floor place to worker ratio, with the applicant stating there is enough existing off-street parking stalls available to handle existing and proposed employee and visitor needs to the site.

Planner Gundlach indicated this site is located directly across the street from the approved school bus terminal of American Student Transportation at 401 1st Street SW. The bus terminal garnered much discussion based on the amount of traffic that would be produced by the site. The applicant was asked whether the proposed addition would produce additional truck traffic to the site. The property owner has indicated the proposed addition could result in two additional semi-truck trips per day, at the greatest. The Public Works Director has indicated this amount is negligible when compared to the amount of traffic on 1st Street SW already and a traffic analysis/study would not be necessary. Staff recommends approval of the Site Plan and Nonconforming Use Permit, subject to the following conditions:

1. The proposed improvements are built in accordance with the plans provided.
2. Implementation of the recommendations contained in the interoffice Engineering/Public Works and Public Safety memos.
3. The City reserves the right to request construction of additional proof of parking stalls at a future date in the event off-street parking becomes limited for users of the site. If necessary, the City will notify the property owner in writing as to whether or not additional off-street parking should be installed.
4. Construction of any of the proposed proof of parking stalls shall require a separate Site Plan approval.
5. At the time of building permit, the applicant shall produce necessary Rice Creek Watershed District and MnDOT permits related to storm water management.

Commissioner Danger asked if the building were to be sold and repurposed, how parking concerns would be addressed. Planner Gundlach stated the additional parking would not be required of the new owner. The new owner would have to review the current parking and additional parking would only be added if deemed necessary.

Chairperson Howard questioned how the City would take action against a new owner. Planner Gundlach stated Chapter 11 of the City Code would be enforced along with addressing other nuisance codes. She commented the proof of parking would have to be built if a nuisance were to arise.

Motion by Commissioner Shardlow, seconded by Commissioner Nichols-Matkaiti to close the Public Hearing.

Approved 7-0.

Motion by Commissioner McPherson, seconded by Commissioner Banker, to recommend the Council approve staff recommendation.

Approved 7-0.

December 18, 2012 Meeting: Planner Gundlach commented the Council would be meeting once in December and other commissions have elected not to hold their December meetings. She was not aware of anything that was ready to be discussed in December. The Commission was in favor of meeting, only if there was business to discuss.

Other Business: None.

Adjournment:

Motion by Commissioner Danger, seconded by Commissioner Shardlow, to adjourn the meeting.

7 Ayes, 0 Nays, Motion carried.

Meeting adjourned at 7:51 P.M.

PLANNING REPORT

DATE: January 10, 2013
CASE: LP2013-001
SUBJECT: Site Plan for 850 County Road D W
APPLICANT: Andrew Wahl on behalf of Dental Property, LLC

REQUEST & BACKGROUND

The applicant is seeking Site Plan approval to develop 850 County Road D W with a new orthodontic clinic of approximately 7,556 SF. The proposal includes a 6,000 SF clinic with attached two car garage, enclosed trash/recycling room and a 2,400 SF basement to serve as mechanical, laundry, storage, lunch, and meeting rooms. The proposal includes construction of surface parking, lighting, and landscaping. All minimum standards have been met and a public hearing is not required.

The property at 850 County Road D W was formerly used as a Godfather's Pizza restaurant, which was demolished several years ago. In 2010, a Site Plan and Special Use Permit were processed for a retail strip building of approximately 12,000 SF, which included a drive-thru and liquor store. That proposal was never developed and the 2010 land use approvals were allowed to expire.

ATTACHMENTS

A – Resolution
B – Project Location Map
C – Zoning Map
D – Aerial Photo
E – Applicant Narrative
F – Interoffice Engineering/Public Works Comments
G – Existing Conditions Survey
H – Sheet AS101: Site Plan & Details
I – Sheet C-100.1: General Notes & Specifications
J – Sheet C-100.2: Standard Details
K – Sheet C-101.1: Grading Plan
L – Sheet C-101.2: Storm Water Pollution Prevention Plan – Notes
M – Sheet C-101.3: Storm Water Pollution Prevention Plan – Plan View
N – Sheet C-102: Utility & Paving Plan
O – Sheet L-101: Landscaping Key Plan , Shrub, Planting Detail
P – Sheet L-102: Landscape Plan @ Rain Gardens
Q – Sheet L-103: Landscape Plan @ Building
R – Sheet AS161: Site Lighting Plan
S – Sheet A-100: Floor Plan – Basement
T – Sheet A-101: Floor Plan – Main Level
U – Sheet A-201: Exterior Elevations, Exterior Finishes Schedule

FINDINGS

Chapter 5, Article 3: B-3 District
Section 6-390: General Performance Standards
Section 8-010: Site Plan Approval
Chapter 11: Parking Standards

SITE CHARACTERISTICS

Location:	850 County Road D W
Lot Size:	66,070 SF (1.517 acres)
Topography:	generally flat
Comprehensive Plan Designation:	CB, Community Business
Zoning:	B – 3, General Business
Surrounding Land Uses:	
North:	multi-family housing
South:	County Road D W – City of Roseville
East:	Old Highway 8 NW – restaurants
West:	office building

SITE PLAN ANALYSIS

The applicant is proposing to develop 850 County Road D West with a dental office clinic. The foot print of the building measures 7,554 SF, consisting of a 6,000 SF clinic and a 1,556 SF garage/trash/recycling space. A 2,400 SF basement is also proposed. The applicant will construct a new surface parking lot consisting of 45 parking stalls and install lighting. No loading or unloading areas are proposed; presumably all deliveries will come through the front door. Site access will continue from shared easements to the west and east. No direct access from County Road D West or Old Highway 8 NW is allowed. Below is a complete Site Plan analysis:

Use

The applicant is proposing to use the property for a dental office use, which is permitted in the B-3, General Business district.

Building Setbacks (Zoning Code Section 5-250)	<i>Required</i>	<i>Proposed</i>
Front	30'	62'
Side (west boundary)	0'	53'
Rear	30'	33'

The proposed building setbacks meet the minimum required under Zoning Code Section 5-250.

Parking Setbacks (Zoning Code Section 11-020)	<i>Required</i>	<i>Proposed</i>
Front	30'	30'
Side (west boundary)	5'	5'
Rear	25'	25'

The proposed parking lot setbacks meet the minimum required under Zoning code Section 11-020.

Required # of Parking Stalls (Zoning Code Section 11-030)	<i>Required</i> (based on 90% of gross SF)	<i>Proposed</i>
Clinic = 6,000 SF Minimum of 3 + 2 (one stall per doctor) + 1/200	32	-
Garage = 1,556 SF Minimum of 1/1,000 SF	1	-
Basement (office) = 2,400 SF 1/200	11	-
TOTAL	44	47 (45 surface, 2 enclosed)

The proposed building is split up into three distinct spaces: the clinic, the garage, and the basement. Staff calculated parking for these areas separately. The proposed number of surface parking stalls meets the minimum required under Zoning Code section 11-030.

Floor Area Ratio (Zoning Code Section 5-250)	<i>Proposed</i>
Not to exceed 1.0 7,556 SF / 66,070 SF	0.1

The proposed F.A.R. is well within the maximum established under Zoning Code Section 5-250.

Building Height (Zoning Code Section 5-250)	<i>Proposed</i>
2 stories or 36', whichever is less	22' @ highest point 16' average height

The building is proposed to be single story, with flat roofs at varying heights. The peak height reaches 21'-6" with average heights of 13'-6" and 17'-6" meeting the maximum established by Zoning Code Section 5-250.

Landscaping

City staff has reviewed the proposed Landscaping Plan against the landscaping requirements of Section 8-010 (2) (C-G). In summary, staff offers the following comments with regard to the proposed Landscape Plan meeting the minimum requirements:

- 33 evergreen and 3 deciduous trees are proposed to be preserved within the boulevard area, meeting the requirement of one coniferous and one deciduous tree per lot to be planted within the boulevard.
- One canopy tree per 50 feet of site perimeter is the maximum amount of trees required. There is 1,252' of site perimeter requiring 25 trees. Based on the combination of new trees and existing trees to be preserved, 33 trees are proposed for the site.
- The make-up of coniferous vs. deciduous is 18 deciduous and 15 coniferous. Based on a requirement of 25 trees, at least a 50% split is proposed with at least 12 (or 13) coniferous and 12 (or 13) deciduous.
- Only 25% of the required number of trees may be preserved trees. Based on a requirement of 25 trees, 25% equates to 6 trees. A preserved tree is credited as 2 new trees. This brings the tree requirement down to 22 trees, with at least 16 being new trees. The applicant is proposing 18 new trees, meeting this standard.

- Based on a requirement of one shrub or each 30' of site perimeter, 42 shrubs would be required. The applicant has proposed 56 shrubs, consisting of 31 woody shrubs and 25 ornamental grasses (non-turf). While ornamental grasses may or may not be considered a "shrub", staff finds this likely meet the intent.
- Less than 100 parking stalls are proposed, not requiring any raised parking lot islands.
- The applicant has provided heightened screening to the residential uses to the north by proposing a berm approximately 6' in height and landscaping the berm. Additionally, preserved pine trees will add to this screening.
- In addition to meeting the minimum landscaping requirements of Chapter 8, the applicant is providing three heavily-planted rain gardens to meet the watershed district standards. These rain gardens contain an additional 2,505 plantings, albeit seedlings, which will still provide additional landscaping interest to the property.

Staff finds the minimum landscaping standards to be satisfied.

Lighting

The applicant has provided a Lighting Plan for the pedestal lighting to be implemented in the surface parking lot. Zoning Code Section 11-010 (6) states that site illumination shall not exceed 0.4 foot-candles at ground level when measured at an adjoining residential property. The Lighting Plan illustrated nearly full compliance with the standard. There is one small location where the foot-candle measurement exceeds 0.4 at 0.5. However, this is located adjacent to the shared driveway access and when extrapolated to the other side of the driveway, the foot-candle maximum is less than 0.4, meeting the standard.

No building mounted lights have been incorporated into the plan nor have fixture details been provided. Zoning Code Section 11-010 (6) requires fixtures be directed downward and installed such that direct light isn't detectable at the property boundary. Staff is recommending a condition of approval that all site lighting comply with Zoning Code Section 11-010 (6). Being the size of the site and the proximity of residentially used property, staff finds compliance with these standards should not be burdensome.

Performance Standards

Section 6-390 identifies several performance standards that all commercial and industrial properties must adhere to. Most of these standards relate to industrial developments; however the following applicable standards have been reviewed:

Section 6-390 (3): Screening

Section 6-390 (3) requires that screening be provided and maintained by the property owner on commercially-used property when it abuts residentially-used property. The proposed development abuts multi-family residential uses to the north. The applicant has proposed a combination of a proposed 6' high planted/landscaped berm and preservation of the existing 6 coniferous trees. Based on the proposed site layout and the layout of the residential buildings to the north, staff finds the proposed screening to be acceptable.

Section 6-390 (12): Exterior Materials

Section 6-390 (12) states "The exterior treatment on the street side of the structure shall be brick, stone, tilt-up slabs, architectural metal panels, decorative block, or the equivalent." The other sides of the structure shall not be raw block." The applicant is proposing a combination of brick, metal, stone, and stucco/EIFS and all sides of the building, meeting this standard.

Signs

The applicant has not provided details on proposed wall or ground signage. There are two existing ground signs: one at the southwest corner of the property and one at the northeast corner of the property, both near the site's two access points. The ground sign at the southwest corner appears to meet minimum requirements and may remain. The ground sign at the northeast corner of the site does not meet minimum setbacks requirements and must be removed.

Section 9-080 of the Zoning Code provides the necessary standards that must be met with regard to placement and size of ground and wall signs. The applicant will be required to meet these criteria and separate Permanent Sign Permits must be obtained.

Public Safety Department Comments

The Fire Marshall has indicated a fire hydrant will be required on site near the Fire Department Connection. The Interoffice Public Works/Engineering Memo includes this requirement. This hydrant must be located on a utility plan submitted in conjunction with the building permit. The Public Safety Department had no other comments.

Public Works/Engineering Department Comments

An interoffice public works/engineering memo is attached. None of the comments are major or should impact the overall Site Plan. These comments must be incorporated into the final design plans. This has been made a condition of approval.

STAFF RECOMMENDATION

Recommend the City Council approve the Site Plan as submitted, subject to the following conditions:

1. Incorporation of the comments contained in the Interoffice Public Works/Engineering Memo dated 1/9/2013, attached to this report.
2. The existing ground sign at the NE corner of the property must be removed prior to issuance of any permits.
3. The applicant must meet ground and wall sign requirements of Zoning Code Section 9-080 and obtain Permanent Sign Permits for all ground and wall signs.
4. All proposed lighting shall comply with Zoning Code Section 11-010 (6).



Janice Gundlach, City Planner

**RESOLUTION
PLANNING COMMISSION
CITY OF NEW BRIGHTON**

RESOLUTION MAKING FINDINGS OF FACT AND RECOMMENDING APPROVAL OF A SITE PLAN.

WHEREAS, an application has been made by Andrew Wahl on behalf of Dental Properties, LLC for consideration of a Site Plan in order to construct a 7,554 SF dental office clinic and related surface parking lot and other site improvements at 850 County Road D West,

WHEREAS, the procedural history of the application is as follows:

1. An application for a Site Plan Review was received on December 28, 2012.
2. The Site Plan was deemed complete on December 28, 2012.
3. The Planning Commission reviewed the request on January 22, 2013.
4. The Planning Commission recommended approval of the Site Plan application.

WHEREAS, the Planning Commission makes the following Findings of Fact with respect to the Site Plan (LP2013-001):

1. The property is currently vacant and was the site of the former Godfather's Pizza restaurant.
2. The property is zoned B-3, General Business.
3. The property is guided in the Comprehensive Plan for Community Business.
4. The existing property area is 1.5 acres or 66,070 SF.
5. The proposed use of a dental office clinic is a permitted use in the B-3, General Business zoning district.
6. The proposed Site Plan consists of constructing an office building with a footprint of 7,554 SF and a 2,400 SF basement, construction of a surface parking lot containing 45 parking stalls, and related landscaping and lighting improvements.
7. The Planning Commission reviewed the Site Plan in accordance with the Zoning Code, more specifically Chapter 5, Sections 6-390, 8-010, and Chapter 11.
8. The Planning Commission reviewed the proposed use, building setbacks, parking setbacks, required # of parking stalls, floor area ratios, building height, performance standards, landscaping, lighting, and interdepartmental concerns and found the proposed development to fully comply with all Site Plan requirements of the Zoning Code, subject to four conditions.

NOW THEREFORE BE IT RESOLVED, that based upon the above findings of fact the application for a Site Plan (LP2013-001) is hereby recommended to the City Council for approval, subject to the following conditions:

1. Incorporation of the comments contained in the Interoffice Public Works/Engineering Memo dated 1/9/2013, attached to this report.
2. The existing ground sign at the NE corner of the property must be removed prior to issuance of any permits.
3. The applicant must meet ground and wall sign requirements of Zoning Code Section 9-080 and obtain Permanent Sign Permits for all ground and wall signs.
4. All proposed lighting shall comply with Zoning Code Section 11-010 (6).

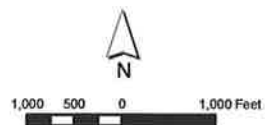
ADOPTED this 22nd day of January, 2013.

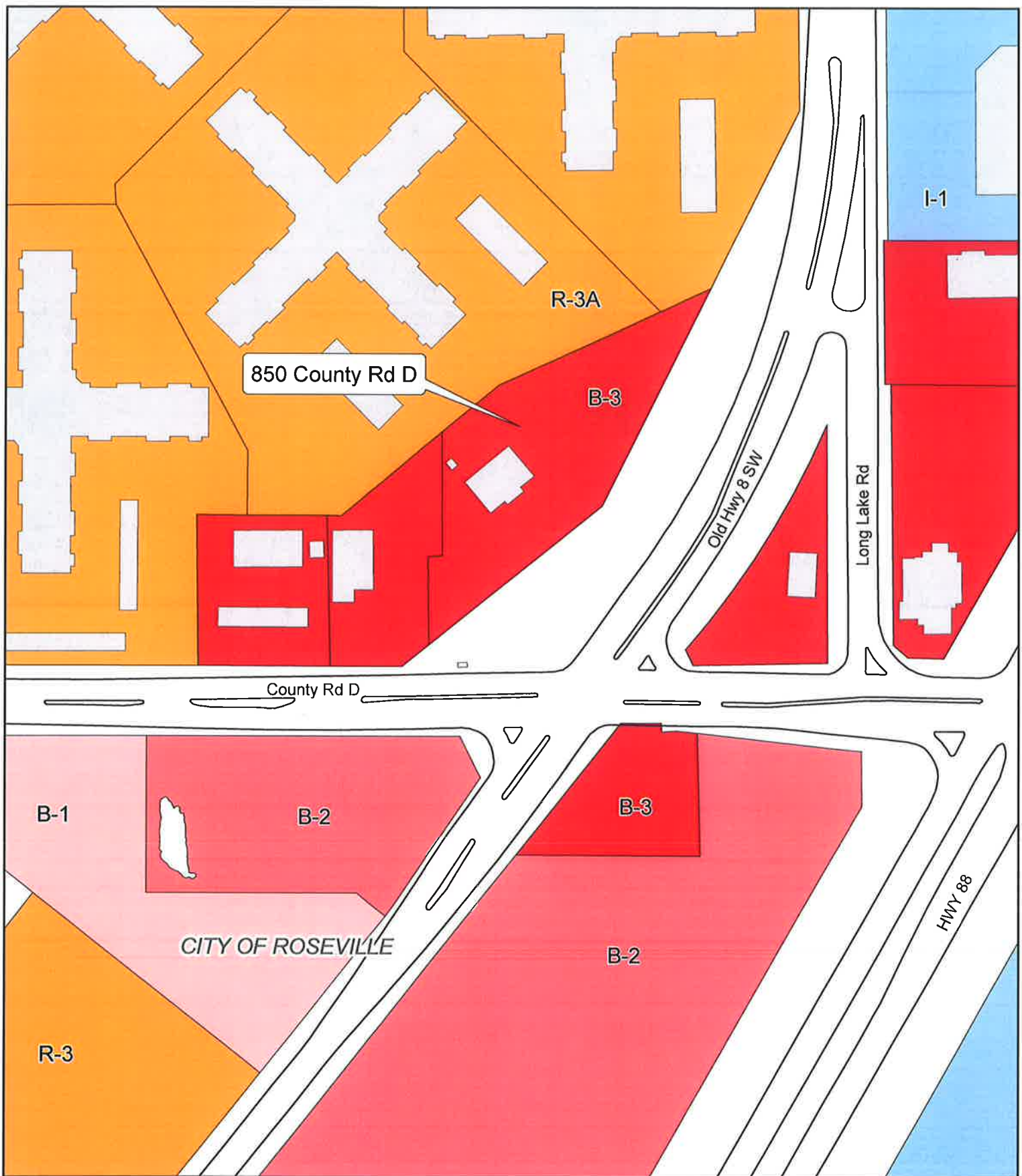
Bruce Howard, Planning Commission Chair

ATTEST:

Janice Gundlach, City Planner

Location Map - 850 County Rd. D





- B-1, Limited Business
- B-2, Neighborhood Business
- B-3, General Business
- R-3A, High Density Residential
- I-1, Light Industrial
- I-2, Heavy Industrial



city of
NEW BRIGHTON
the city that works for you


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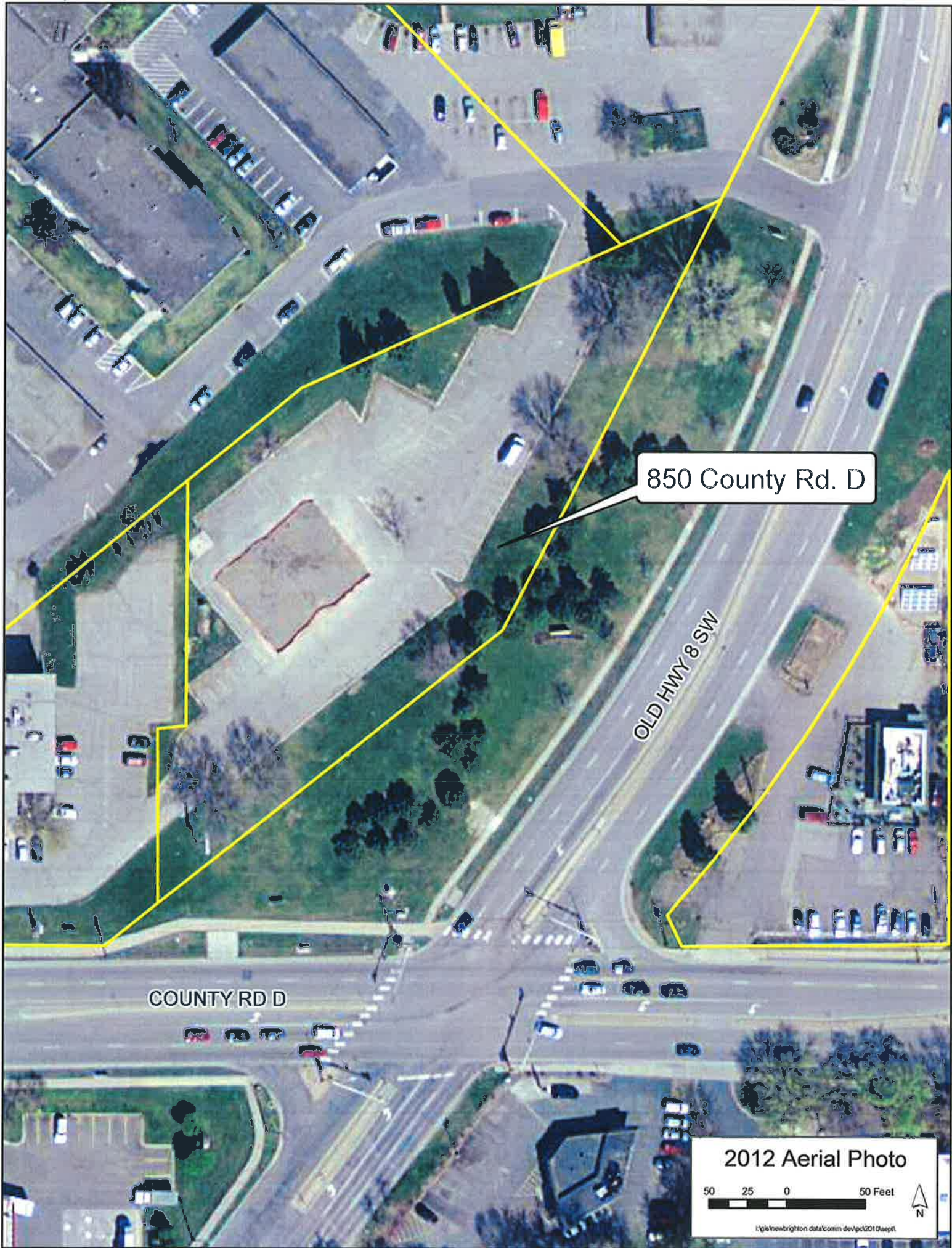
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80 Feet

Current Zoning

850 County Rd D
B-3, General Business

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850 County Rd. D

OLD HWY 8 SW

COUNTY RD D

2012 Aerial Photo

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Narrative for Village Orthodontics

We are seeking Site Plan Approval to build a new Orthodontic Clinic at the NW corner of County Rd D west and Old Highway 8. The Clinic will be just under 6,000 sf, with an attached two car garage and enclosed trash / recycle room, bringing the building footprint up to 7,556 sf. There will also be a 2,400 sf basement area for building support functions such as mechanical rooms, laundry, and storage, along with staff meeting / lunch room.

The building will be single story, with flat roofs at varying heights, mostly at 13'-6" and 17'-6", with a taller portion at the entry with a barrel vaulted standing seam steel roof reaching 21'-6" supported by stone walls. The higher portion of the roof will wrap around the roof-top mechanical equipment on three sides, screening this equipment from view with a minimal amount of extra effort. The exterior walls of the building are frame construction finished with EIFS with a brick wainscot capped with a stone sill.

Needing to maintain access through the site to meet fire department requirements worked well with our program, providing patient entrance and parking on the west side with staff entrance and staff parking on the east. Including the two car garage, we are showing 47 parking spaces. Only 30 are required for this clinic (at 1 space per 200 sf of floor area) but we are showing the additional 17 to allow for a 3,400 sf expansion in the future near where the outdoor play area is currently being proposed.

The landscaping is a vital part of this project, with the exam chairs being cloistered by a wooded berm which provides screening between the clinic and the adjacent apartments, while the reception area wraps around another garden designed to provide color year round. The rain gardens along the south side of the parking are to be planted with a variety of native wildflowers to provide a combination of aesthetic, function, and low maintenance. If we take advantage of the allowance for one existing tree to count as two trees (up to 25% of the required) we exceed the required tree count, and although our mix of evergreen and deciduous is not exactly 50 / 50, we are hoping that the offending trees that exceed the required number and ratio can be ignored.



interoffice

MEMORANDUM

to: Janice Gundlach, City Planner
from: Craig Schlichting, Civil Engineer II
subject: Village Orthodontics
date: January 9, 2013

The Engineering Department has reviewed the site plan for the proposed Village Orthodontics and we offer the following comments;

Streets-Parking Lot

1. Old Highway 8 and County Road D are Ramsey County Roads and all permits for right-of-way work including utility work and road closures shall be coordinated through them.
2. It appears that all of the existing lights will be removed/replaced, based on building/parking placement and lighting plan provided.

Storm Sewer-Grading

1. All storm sewer utilities within the site are to be considered private and are the responsibility of the property owners for construction and maintenance.
2. A permit will be required from the Rice Creek Watershed District.
3. The site ultimately drains to Jones Lake. The current list of impaired waters does not list Jones Lake for any site specific BMP's.
4. Provide a detail of the curb cut. It is recommended that a concrete spillway be constructed from the curb cut into the basin, with the riprap being placed at the

discharge point. However, we recognize that the plans indicate that the riprap should be depressed below the flow line, and fabric will be extended to prevent undermining.

5. Please clarify and indicate the locations where the roof will drain/discharge on the grading plan (what will be placed at these locations?).
6. No cleanouts are indicated on the existing draitile line. For maintenance these are recommended. Additionally, it is recommended to indicate the actual transitions from perforated pipe to solid pipe (i.e. PVC) between basins on the plan view.
7. The overflow indicated north of rain garden three, should be raised (i.e. 858.70) so that the overflow will be directed to the existing driveway (spot elevation 858.50). Thus following the existing drainage patterns.

Watermain

1. The watermain system within the site is to be considered private and shall be constructed and maintained by the property owners. A permit will be required for all sewer and water connections and shall be inspected by Public Works.
2. The Fire Marshall/City Code Inspector shall review the distance from the fire department connection to the nearest fire hydrants, it appears to be about 220-feet and 260-feet. An additional onsite hydrant may be required. A wall mount post indicator valve should be shown on the mechanical drawings.
3. The existing water service is shown as originally installed. The city requires disconnection at the main, and we believe this was completed with the previous demolition. Update the plans accordingly (contact Scott Boller for location of removal 651-638-2119).
4. The Engineer is proposing a combination domestic and fire service line. The owner/mechanical engineer will need to verify internal size requirements for both the fire and domestic lines. The plans should be updated to include separate domestic/fire lines. The new connections are to be made by a "wet tap and valve" vs. the currently shown connection with a cut-in 8"x6" tee. A 4-inch domestic service may lend itself to stagnant water issues. Please revise accordingly.
5. The owner/engineer will need to obtain a permit from MnDOLI for watermain construction and internal plumbing design.

Sanitary Sewer

1. The sanitary sewer services are to be considered private and shall be constructed and maintained by the property owners. A permit will be required for all sewer and water connections and shall be inspected by Public Works.

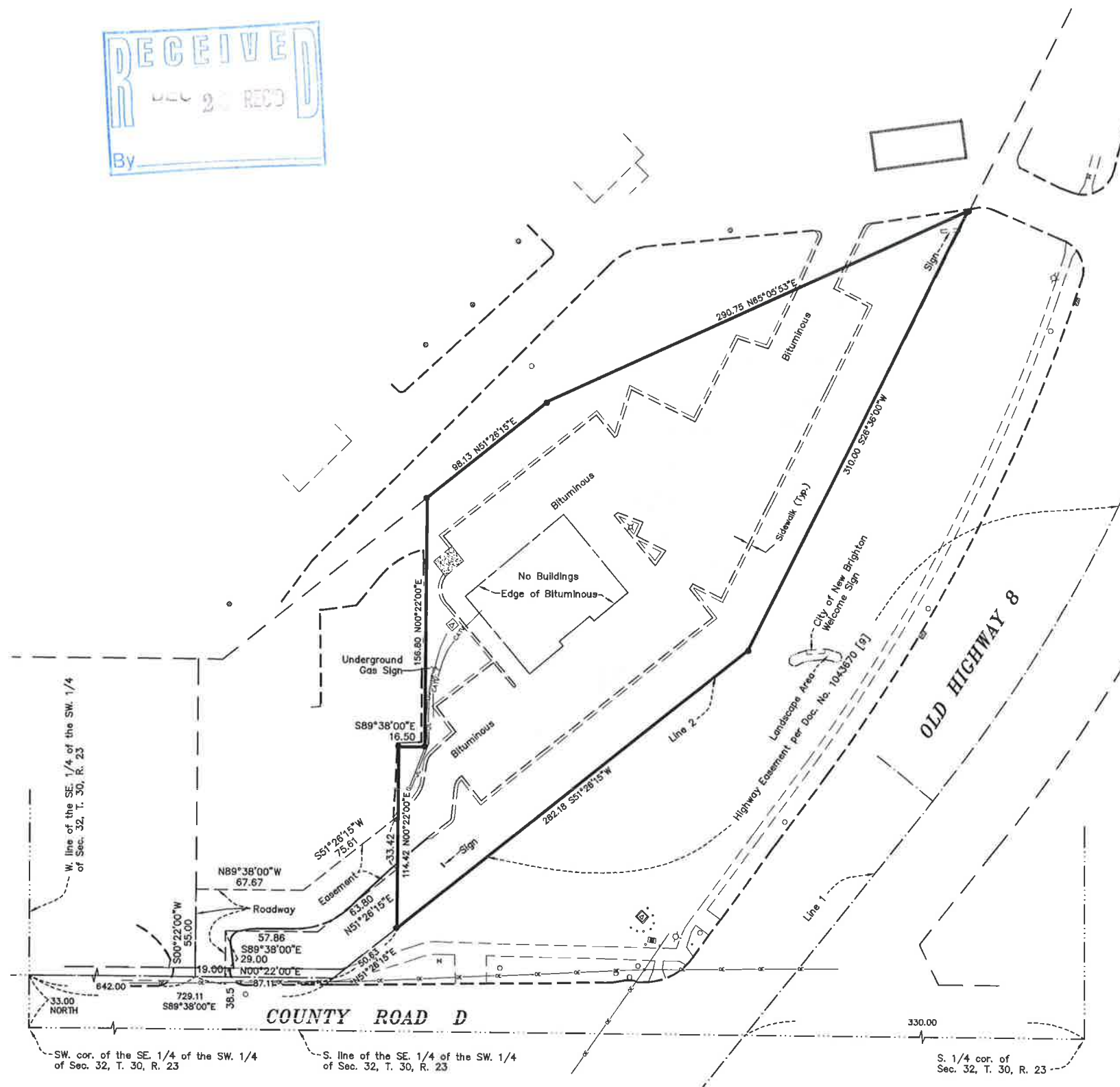
2. The existing sanitary sewer service is shown as originally installed. The previous demolition disconnected the existing service just outside of the MH. Update the plans accordingly (contact Scott Boller for location of removal 651-638-2119). The sewer is being replaced with a 6-inch sewer line. Clean outs are shown as required with in every 100-feet and at locations of grade or direction change. The materials and grades will need to be reviewed/approved by MnDOL and/or MPCA. The proposed sewer service shall connect to the existing 8-inch main and should not be connected directly to the MH. The previous connection to the MH shall be removed and capped accordingly.

Easements-Survey

1. The existing survey by Hedlund indicates a roadway easement for the southern entrance. Staff has found an existing easement document for the northern entrance which needs to be shown on the existing survey.

Misc.

1. No drainage calculations were provided. Please include one copy with future submittals. If RCWD requires changes, updated calculations and basin design should be sent to the City for our file.
2. The provided infiltration volume indicated for RG2 shall be changed from 707 to 992 CF (based on my calculations).

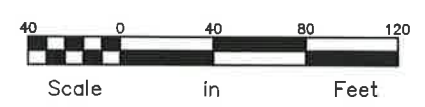


LEGEND

- [---] = EXISTING CONCRETE
- [XXX.X] = EXISTING SPOT ELEVATION
- [---] = EXISTING CATCH BASIN
- [---] = EXISTING CATCH BASIN
- [---] = EXISTING FES MANHOLE
- [---] = EXISTING FES
- [---] = EXISTING GATE VALVE
- [---] = LIGHT POLE
- [---] = HYDRANT
- [---] = POWER POLE
- [---] = TEL. PED.
- [---] = ELEC. TRANS.
- [---] = PLAT EASEMENT
- [---] = SANITARY SEWER
- [---] = STORM SEWER
- [---] = WATERMAIN
- [---] = UNDERGROUND GAS
- [---] = UNDERGROUND TELEPHONE
- [---] = UNDERGROUND ELECTRIC
- [---] = BUILDING SETBACK LINE
- [---] = PARKING SETBACK LINE
- [#] = TITLE COMMITMENT ITEMS
- [---] = DENOTES MONUMENT SET
- [---] = DENOTES MONUMENT FOUND
- [---] = PLAT EASEMENT

Note:
The curb in the parking area varies in height from 0.2' to 0.4' due to sinking and heaving.

VICINITY MAP



PARKING SPACE TABLE	
TYPE OF SPACES	TOTAL EXISTING
REGULAR	75
HANDICAP	2
TOTAL	77

Zoning Classification : B-3, General Business

- No structure or building shall exceed two stories or 36 feet in height, whichever is less in a B-2 District.
- Each building shall have a front yard setback of not less than thirty feet.
- No side yards shall be required except as follows:
 - A. There shall be a side yard of not less than thirty feet on a corner lot adjacent to a key lot in a residential district.
 - B. There shall be a side yard of not less than thirty feet along that side of every lot in a B-2 District bordering upon property in an R-1 or R-2 District; and, there shall be a side yard of not less than twenty feet where a B-2 District borders upon property in an R-3 District.
 - C. A side street yard on a corner lot shall not be less than thirty feet.
- There shall be a minimum rear yard of thirty feet for every lot in a B-2 District.
- The floor area ratio in a B-2 District shall not exceed .75. (Code of 2001)

Date: October 6, 2009
Rev.: 6/2/10, 7/14/10, 7/22/10, 9/15/10
11/2/12

The property described on this survey DOES NOT lie within a Special Flood Hazard Area as defined by the Federal Emergency Management Agency; the Property lies within Zone C of the Flood Insurance Rate Map identified as Community Panel No. 270380 0005 B, bearing an effective date of September 1, 1978.

LEGAL DESCRIPTION

That part of the Southeast 1/4 of the Southwest 1/4 of Section 32, Township 30, Range 23, Ramsey County, Minnesota, described as follows: Commencing at the Southwest corner of said Southeast 1/4; thence North (assumed bearing) along the West line of said Southeast 1/4 of the Southwest 1/4 a distance of 33.00 feet; thence South 89 degrees 38 minutes 00 seconds East a distance of 642.00 feet; thence North 51 degrees 26 minutes 15 seconds East a distance of 50.63 feet to the actual point of beginning; thence North 00 degrees 22 minutes 00 seconds East a distance of 114.42 feet; thence South 89 degrees 38 minutes 00 seconds East a distance of 156.80 feet; thence North 00 degrees 22 minutes 00 seconds East a distance of 156.80 feet; thence North 51 degrees 26 minutes 15 seconds East a distance of 98.13 feet; thence North 65 degrees 27 minutes 10 seconds East a distance of 290.75 feet; thence South 26 degrees 36 minutes 00 seconds West a distance of 310.00 feet; thence South 51 degrees 26 minutes 15 seconds West a distance of 282.18 feet to the point of beginning and there terminating.

Together with a roadway easement described as follows: That part of the Southeast 1/4 of the Southwest 1/4 of Section 32, Township 30, Range 23, Ramsey County, Minnesota, described as follows: Commencing at the Southwest corner of said Southeast 1/4; thence North (assumed bearing) along the West line of said Southeast 1/4 of the Southwest 1/4 a distance of 33.00 feet; thence South 89 degrees 38 minutes 00 seconds East a distance of 642.00 feet to the actual point of beginning; thence South 89 degrees 38 minutes 00 seconds East a distance of 19.00 feet; thence North 00 degrees 22 minutes 00 seconds East a distance of 29.00 feet; thence South 89 degrees 38 minutes 00 seconds East a distance of 57.86 feet; thence North 51 degrees 26 minutes 15 seconds East a distance of 63.80 feet; thence North 00 degrees 22 minutes 00 seconds East a distance of 33.42 feet; thence South 51 degrees 26 minutes 15 seconds West a distance of 75.61 feet; thence North 89 degrees 38 minutes 00 seconds West a distance of 67.67 feet; thence South 00 degrees 22 minutes 00 seconds West a distance of 55.00 feet to the actual point of beginning.

AREA = 66,070 Sq.Ft. = 1.517 AC.

ALTA/ACSM LAND TITLE SURVEY
for
DENTAL PROPERTIES, LLC

To: Dental Properties, LLC, and First American Title Insurance Company:
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 6b, 7a, 8, 9, and 11a of Table A thereof. The field work was completed on 10/31/12.

Date of Plat or Map: October 6, 2009.

HEDLUND PLANNING ENGINEERING SURVEYING
2005 Pin Oak Drive, Eagan MN 55122 (651) 405-6600

Jeffrey D. Lindgren
Jeffrey D. Lindgren, PLS
Minnesota License Number 14376
JeffL@HedlundEng.com

Note: Official copies are stamped with a RED seal.
First American Title Insurance Company Commitment Number NCS-570265-MPLS, dated September 20, 2012 was used in the preparation of this survey.

2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600

HEDLUND
PLANNING ENGINEERING SURVEYING



hereby certify that this plan, specification,
report was prepared by me or under my
direct supervision and that I am a duly
licensed Architect under the laws of the
State of

MINNESOTA

Signatur

Architect / Registration

012. 12. 28

PAWU

Checks

evision

220

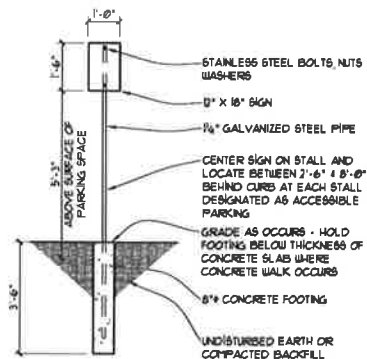
Project Name

VILLAGE
ORTHODONTICS

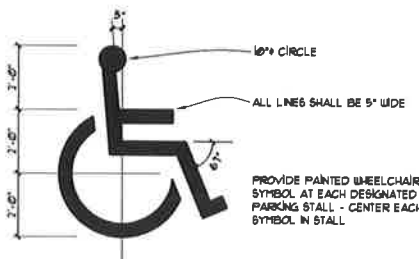
850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

SITE PLAN & DETAILS

AS101




SIGN DETAIL
 1/2" x 1' - 0"



 ACCESSIBLE PARKING SYMBOL
1/8" = 1' - 0"



BI ACCESSIBLE PARKING SIGNS
ASD 1/2" x 1'-0"



A2 SITE PLAN
1" = 30'-0"



STANDARDS AND REFERENCES

Materials and construction methods specified in the plans reference the Minnesota Department of Transportation (MNDOT) Standard Specifications for Construction. The Contractor shall obtain a current copy of MNDOT's Standard Specifications for Construction and review the specification sections applicable to the plans.

It is mandatory that the Contractor be knowledgeable of the applicable MNDOT specification sections during construction. No additional compensation will be paid to the Contractor for additional work due to unfamiliarity with the applicable specification sections.

EARLYWORK NOTES

PROTECTION

- 1) The Contractor shall maintain all benchmarks, monuments and other reference points. If any are disturbed or destroyed, they shall be replaced at the Contractor's expense.
- 2) The Contractor shall contact the Engineer immediately if any unknown functioning underground utilities are discovered during the course of the project, which may interfere with construction. The Contractor shall wait for instructions before proceeding.
- 3) The Contractor shall be responsible for any damage to functioning underground or overhead utility lines. Damaged utilities shall be repaired immediately and service restored at no additional cost to the Owner.
- 4) The Contractor shall provide barricades, shoring and other safety measures required by OSHA.
- 5) The Contractor shall protect all adjacent existing facilities from damage, including but not limited to settlement due to excavations, erosion, etc. The Contractor shall be responsible for the repair of such damages.

PROJECT CONDITIONS

- 1) The Contractor shall become familiar with the project site, and compare actual conditions in the field with those shown on the project drawings. The Contractor shall contact the Engineer immediately if any inconsistencies are found between the existing conditions and the project drawings.
- 2) No extra compensation will be allowed due to unusual conditions which could have reasonably been determined or anticipated by examination of the project site and project drawings.

FINAL GRADES

- 1) Elevations shown on the project drawings are finished grade elevations, unless noted otherwise. Elevations not specifically indicated shall be determined by interpolation of uniform slope between spot elevations and/or contours, or between such points and existing elevations. Adequate slope shall be constructed to provide positive drainage away from structures.
- 2) If inconsistencies exist on the plans between contours and spot elevations, the spot elevations shall govern.

TOPSOIL

- 1) Adequate imported and/or stockpiled salvageable topsoil shall be utilized for this project.
- 2) Topsoil shall be free of clay lumps, roots, boulders, large stones, and debris, and shall have a minimum organic content of 5 percent.
- 3) Remove topsoil to its entire depth from areas which are to be disturbed by new construction work. Existing lawn areas, which are not in the proposed construction area, shall remain in place. The Contractor shall field verify topsoil depths between any soil borings, and remove to greater depths than indicated in the soil report if such conditions are encountered. Salvaged topsoil shall be maintained in stockpiles.
- 4) Stockpiled topsoil shall only be used for finish grading of new lawn areas. Excess topsoil shall be removed from the site by the Contractor.
- 5) Protect all existing lawn areas, plantings, and other landscaping to remain in place. Any damaged areas shall be replaced at the Contractor's expense.

UNFORESEEN OBSTACLES

- 1) The Engineer shall be contacted immediately if any unforeseen major obstacles are encountered during excavation, such as abandoned wells, abandoned or functioning utilities, subsurface streams or rock, etc., which would add significant expense to the Contractor.
- 2) The Contractor shall still be responsible for completing all work required for this project where encountered conditions may be reasonably determined from a soil/geotechnical report and review of the project site and contract documents.

DEWATERING

- 1) Surface drainage shall be provided during construction in a manner so as not to create a nuisance to adjacent areas.
- 2) All excavations shall be free of water during construction within the excavations. Dewatering shall be accomplished by pumping or trenching, and shall be conducted regardless of the cause, source, or nature of the water.
- 3) Berms, cofferdams, or piling shall be provided as necessary to protect excavations.
- 4) Excavations shall be sloped to drain, and necessary pumps, hoses and other equipment shall be provided to keep excavation free of water.
- 5) All temporary equipment used for dewatering shall be removed from the site when no longer necessary.

FILLING AND GRADING

- 1) Rough grading of all areas within the construction limits, including adjacent transition areas shall be reasonably smooth and compacted. The rough graded subgrade surface generally shall not be more than 6 inches above or below the established grade. All ditches, swales, and gutters shall be graded to drain adequately. The subgrade shall be evenly sloped to provide drainage away from building walls in all directions of a minimum slope of 1%. The Contractor shall provide rounded transitions at top and bottom of banks and other breaks in grade.
- 2) Fill and backfill materials shall be inorganic soils free of roots, rocks, boulders, and debris.
- 3) Bedding material or granular backfill larger than 2" in its largest dimension shall not be allowed within 2 feet of new underground pipes. Material larger than 3" in its largest dimension shall not be allowed within 1 foot of subgrade elevation.
- 4) Imported compacted fill material shall have a maximum of 12 percent passing the #200 sieve, by weight. The proposed fill material shall be tested by an independent testing lab for suitability as compacted fill for this project. The Contractor shall pay for the testing services and provide a copy of the test results to the Engineer.
- 5) The Contractor shall fill and grade as necessary to bring surface to required elevations, and provide all materials necessary, whether obtained on or off the project site.
- 6) The Contractor shall place compacted material in uniform horizontal lifts not exceeding 8" in depth for clay soils, and 12" in depth for sandy soils, and compact as required to achieve specified density.
- 7) Compaction shall be obtained with the use of vibratory rollers or rammers. During compaction, fill material shall contain moisture content, as necessary, for the required compaction as indicated by an independent testing laboratory. The moisture shall be uniform throughout each lift. If the material is too dry, water shall be added with approved equipment and methods, which will not wash out the material. If the material is too wet, it shall be dried by harrowing, disk, blading, or other approved methods recommended by the independent testing laboratory.
- 8) Areas designated for pavement in excavated (cut) areas shall be scarified to a depth of 1 foot. The Contractor shall bring the subgrade material to optimum moisture content and compact by the independent testing laboratory, and compact the subgrade to the specified density listed below for soils underneath pavements.
- 9) The Contractor shall not place fill material when either the fill material, or the material on which it is to be placed is frozen. Any soft or yielding areas appearing in the fill resulting from frost, rain, or any other reason whatsoever shall be scarified, removed, recompacted and/or otherwise rectified to the satisfaction of the Engineer before any new fill is placed.

COMPACTION TESTS

- 1) Utility Trench Backfill: The Contractor's independent soils technician and approved testing laboratory shall perform in-place density and moisture tests at random depths in trench backfill at 100 foot intervals, or fraction thereof. Compaction of trenches shall be a minimum of 95% of the maximum dry density (as determined by the independent testing laboratory) in lawn areas and at depths greater than 3 feet below areas designated for pavement. Compaction of trenches at depths within 3 feet of paved surfaces shall be a minimum of 100% of the maximum dry density.
- 2) Compacted Fill Under Pavements: Compaction tests shall not be required beneath new pavements. Adequate compaction of materials under pavements shall be determined by test using the subgrade, and checking for excessive rutting. Test rating shall be performed as per MNDOT Spec. 2111.
- 3) Areas exhibiting a failed compaction test shall be recompacted and re-m tested to the satisfaction of the Engineer prior to acceptance of the project.
- 4) Copies of all compaction testing and test report observation reports shall be provided to the Engineer.
- 5) Optimum moisture-density relationships will be determined by testing laboratory in accordance with ASTM D698 and maximum density determination made by Method D of ASTM D998 unless otherwise noted in these specifications.

SUBGRADE PREPARATION

1) Finished subgrade elevations shall be as follows:

- a) Bituminous pavement: 23" below finish grade.
- b) Concrete sidewalk: 8" below finish grade.
- c) Lawn areas: 4" below finish grade.
- d) Planting areas: See Landscaping Plans/Details.

2) The tolerance for areas to be paved shall not exceed 0.15 feet above or below plan subgrade.

3) The Contractor shall protect newly graded areas from erosion, settlement or washing that occurs prior to acceptance of the Work shall be repaired and grades re-established.

REMOVAL OF EXCESS WASTE MATERIALS

1) The Contractor shall remove excess excavated material, debris, and waste material, from the Owner's property and legally dispose of it in accordance with all governing codes.

SPREADING TOPSOIL AND FINISH GRADING

1) Scarify subgrade to depth of 3" prior to placing topsoil. Spread topsoil evenly over complete subgrade as follows:

- a) Lawn Areas on Private Property: Spread 4" lightly compacted layer of topsoil.
- b) Lawn Areas in Public Right-of-Way: Per City requirements.
- c) Planting Areas: See Landscaping Plans/Details.

2) Finish grade accurately within 0.15 feet of finish grades shown on the project drawings, less the thickness of any sod where it is to be installed. Slope of grades away from buildings to provide positive drainage.

3) Prepare topsoil suitable to receive seed and/or sod. Grading of areas designated for topsoil shall be reasonably smooth and even and in accordance with MNDOT Spec. 2105.3C. All debris and stones exceeding 3" in diameter shall be removed from the soil surface of these areas prior to seeding. Areas compacted by vehicles or storage of materials shall be plowed, disked and harrowed to match texture of other finish graded areas.

4) Grass seed shall be in accordance with MNDOT Spec. 3876, seed mix No. 260, applied at the rate of 100 pounds per acre or as indicated on the landscape plans. Mulch shall be applied and dischanted to at seeded area and shall meet the requirements of MNDOT Spec. 3882, Type 3 or as otherwise indicated by the Engineer.

UTILITY NOTES

STANDARD SPECIFICATIONS

- 1) The following standard specifications shall apply to this project:
 - a) Minnesota Plumbing Code (MN Dept. of Labor and Industry-MNDOL)
 - b) City Engineers Association of Minnesota (CEAM) Standard Specifications
 - c) American Society for Testing Materials (ASTM)
 - d) American National Standards Institute (ANSI)
 - e) American Water Works Association (AWWA)
 - f) Federal Standards (FWS)
 - g) Minnesota Department of Transportation "Standard Specifications for Construction" (MNDOT)
- 2) The Contractor shall comply with all local ordinances and codes.
- 3) Certifications of all utility materials, as well as shop drawings, shall be submitted to the Engineer for review.

POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS - SANITARY

1) Smooth walled polyvinyl chloride pipe and fittings shall consist of SDR 26 or SDR 35 pipe, unless noted otherwise, and meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2621.2A5 of the CEAM Standard Specifications.

2) All pipe and fittings shall be SDR 35 for depths of up to 20 feet, and SDR 26 for depths exceeding 20'.

3) Pipe joints shall meet the requirements of Section 4715.0810 of the MN Plumbing Code, and Section 2621.3A3 of the CEAM Standard Specifications.

DUCTILE IRON (DI) PIPE AND FITTINGS - WATER

1) Ductile iron pipe that meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2611.2A1 of the CEAM Standard Specifications.

2) Pipe joints that meet the requirements of Section 4715.0820 of the MN Plumbing Code, and Section 2611.3B of the CEAM Standard Specifications. Stainless steel bolters shall be prohibited.

3) 6" pipe shall be Class 52, 8" and larger pipe shall be Class 50.

POLYETHYLENE GLYCOL (PEGL) PIPE AND FITTINGS - WATER

1) Polyethylene glycol pressure pipe and fittings shall meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2611.2A3 of the CEAM Standard Specifications.

2) Pipe joints shall meet the requirements of Section 4715.0810 of the MN Plumbing Code, and Section 2611.3B of the CEAM Standard Specifications.

GATE VALVES - WATER

1) Gate valves shall meet the requirements of Section 4715.1800 of the MN Plumbing Code, and Sections 2611.2C and 2611.3D of the CEAM Standard Specifications.

HYDRANTS - WATER

1) Hydrants shall meet the requirements of Sections 2611.2B and 2611.3D of the CEAM Standard Specifications.

2) Hydrants shall be Watertite WB67, or approved equal.

BLOCKING AND ANCHORING - WATER

- 1) Water main blocking and anchoring shall meet the requirements of Section 2611.3A4 of the CEAM Standard Specifications.
- 2) Provide thrust reaction blocking consisting of concrete with a minimum 28 day compressive strength of 2000 psi.
- 3) Place between undisturbed ground and the filling to be anchored. Place thrust blocking so that the pipe and fitting joints are accessible for repair.
- 4) Mega-Lugs may be used in lieu of thrust block if allowed by local utility.

COPPER TUBING AND CUBS SLOPE - WATER SERVICE

- 1) Copper tubing for water services shall meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2611.2D of the CEAM Standard Specifications.
- 2) Cub slopes for water services Section 2611.2D of the CEAM Standard Specifications.

HIGH DENSITY POLYETHYLENE (HDPE) PIPE (HDP) AND FITTINGS - STORM

1) HDPE pipe and fittings shall meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2621.2A8 of the CEAM Standard Specifications.

2) Pipe joints that meet the requirements of Section 4715.0810 of the MN Plumbing Code, and Section 2621.3A3 of the CEAM Standard Specifications.

3) Minimum wall thickness shall be 0.035 inches for 12 and 16 inch diameter pipe, and shall be 0.05 inches for 18 and 24 inch diameter pipe.

REINFORCED CONCRETE (RCP) PIPE (RCP) AND FITTINGS - STORM

1) RCP pipe and fittings shall meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2621.2A3 of the CEAM Standard Specifications.

2) Pipe joints that meet the requirements of Section 4715.0780 of the MN Plumbing Code, and Section 2621.3A3 of the CEAM Standard Specifications.

3) The ASTM strength class of pipe shall be Class II unless otherwise shown on the Plans.

4) The pipe shall be drawn together by some approved method of jacking or winching. This pressure must be maintained until sufficient backfill is placed to keep the joint from opening.

COMPACTED FILL PIPE (CFP) AND FITTINGS - STORM

1) CFP pipe and fittings shall meet the requirements of Section 4715.0420 of the MN Plumbing Code, and Section 2621.2A4 of the CEAM Standard Specifications, and MNDOT Spec. 3224.

2) Pipe joints that meet the requirements of Section 2621.3A3 of the CEAM Standard Specifications, and MNDOT Spec. 2963.

3) The pipe shall be fourteen (14) gauge unless otherwise indicated, except that the gauge of metal in arch-pipe shall conform to the Standard Plate 3040 of the Minnesota Department of Transportation Standards for the sizes shown on the Plans.

4) If bituminous coating is required, the provisions of MNDOT Spec. 3227 (Type A) shall apply.

5) End sections shall be provided at all pipe inlets and outlets. The last 3 joints shall be tied, and shall be provided with an approved trash guard.

BID SECTIONS - STORM

1) End sections shall be provided at all pipe inlets and outlets.

2) The end sections shall consist of material matching the material of the pipe, which is being connected to. Materials and joints shall be as per the specifications described above for the applicable pipe material.

3) The last 3 joints shall be tied, and the end section shall be provided with an approved trash guard.

WINDHOLE AND CATCH BASIN - SANITARY AND STORM

1) Unless otherwise noted, manhole and catch basin structures shall consist of precast concrete, and meet the requirements of Sections 2621.2C and 2621.3D of the CEAM Standard Specifications.

2) Catch basins shall be provided with the following coverings:

- a) Along curbline: Neenah R-3250A w/ type "C" grate.
- b) Isolated (in paved area): Neenah R-2535 w/ type "C" grate.
- c) Isolated (in vegetated area): Neenah R-2550 w/ type "C" grate.

3) Manholes shall be provided with the following coverings:

- a) Sanitary: Neenah R-1733 w/ concealed pick hole.
- b) Storm: Neenah R-1733 lettered "STORM", center pick hole.

INSTALLATION

1) Unless otherwise noted, installation of all water and sewer pipe, fittings, and appurtenances shall be as per the CEAM Standard Specifications.

TESTING REQUIREMENTS

1) Water and sewer pipe, fittings, and appurtenances shall be inspected and tested as per Section 4715.2890 of the MN Plumbing Code, and Sections 2611.3E-2611.3H and 2621.3F-2621.3H of the CEAM Standard Specifications.

2) In the event of discrepancies between the testing requirements of the MN Plumbing Code and the CEAM Standard Specifications, the most stringent will govern.

BITUMINOUS PAVEMENT NOTES

STANDARDS

1) Minnesota Standard Specifications for Highway Construction, most recent edition.

GRANULAR BASE COURSE

- 1) Compacted thickness of finished base: 8"
- 2) Process material shall meet the requirements of MNDOT Spec. 3138, Class 5.
- 3) The subgrade shall be tested and observed to the satisfaction of the Engineer prior to placement of aggregate base material. Initial base material as required to accommodate new plan grades.
- 4) Wet base material to approximate optimum moisture content either prior to delivery to job site or as soon as practical after being placed on subgrade.
- 5) Place in layers not exceeding 4" thickness (loose).
- 6) Compact with pneumatic or vibrating steel drum rollers.
- 7) After base course has been graded and compacted thoroughly wet and slash roll with roller until all aggregates are thoroughly embedded.
- 8) Allow base course to cure for a minimum of 72 hours prior to bituminous course application.

BITUMINOUS BASE AND SURFACE COURSE

- 1) Mix Designation Numbers for the bituminous mixture on this project are per MNDOT Spec. 2360.
- 2) Pavement smoothness requirements will be waived for this project.
- 3) Density for the bituminous mixture on this project will be the ordinary compaction method (MNDOT 2360.6C).
- 4) Bituminous Base course shall conform to MNDOT 2360, Type LVNWS3008 and shall be 1+ inches thick after compaction. Bituminous Surface course shall conform to MNDOT 2360, Type LWES3008 and shall be 1+ inches thick after compaction.
- 5) Place no asphaltic mixture when the atmospheric temperature is below 45 degrees and falling, nor should pavement be placed under wet conditions.
- 6) Mixing:
 - a) Paving mixture: Uniform mixture of coarse aggregate, fine aggregate, mineral filler and asphaltic material.
 - b) Grading and mixing: Conform to applicable sections of the Minnesota Standard Specifications for Highway Construction, Section 2360.

CONSTRUCTION METHODS

- 1) Properly clean base course and deliver hot mix asphaltic concrete in clean tight vehicles with covers if necessary.
- 2) Lay to a smooth surface without segregation of material and allow compaction as early as possible. Commence rolling while the material is hot (minimum spread temperature 250 degrees F), as soon as it will support the roller without undue displacement or surface cracking and continue until a minimum of 98% of maximum has been attained, no further compaction can be obtained and roller marks are eliminated.
- 3) The completed surface: Smooth, free of pockets that will retain water and shall not vary more than 1/16" per foot nor more than 1/4" under a 16' straight edge. Entire surface must drain. No flat areas are permitted.
- 4) Perform all Work in accordance with the applicable requirements of the Minnesota Standard Specifications for Highway Construction.

PAINTED LINES

- 1) Special marking paint compound especially for striping bituminous paving in one coat.
- 2) Manufacturers: Prall & Lambert, Inc., Sherwin Williams Co. or DuPont Co.
- 3) Color: The yellow paint for concrete and asphalt.
- 4) All surfaces to be painted must be thoroughly clean and dry.
- 5) Lay out painted lines with chalk on pavement in accordance with Project Drawings.
- 6) Accurately apply paint to the chalk marks using striping machines, 4" wide shoes.
- 7) Apply paint in strict accordance with the manufacturer's directions.
- 8) Protect all paint from damage by traffic until dry.
- 9) Apply handicap logo at hand cap slot.

FIELD QUALITY CONTROL

- 1) Aggregate Base Testing:
 - a) The granular base course shall be test rated and observed by the Contractor's independent soils technician as per MNDOT 2211.3C2 (Quality Compaction Method). Once the base course has been tested to the satisfaction of the Engineer, pavement may be placed.
 - b) One mechanical analysis (ASTM D-422) per 500 cubic yards of base or fraction thereof.
- 2) Bituminous Testing:
 - a) Test temperature of hot truck.
 - b) Ordinary compaction (MNDOT 2360.6C).

CONCRETE PAVEMENT, CURB, GUTTER, AND SIDEWALK

STANDARDS

- 1) ACI 318, ACI 315, ACI 308, ACI 309, latest editions.
- 2) Minnesota Standard Specifications for Construction, most recent edition.

GRANULAR BASE COURSE MATERIAL

- 1) Compacted thickness of finished base: 8"
- 2) Base material shall be granular with less than 5% passing the #200 sieve by weight.

AGGREGATES

- 1) Coarse: MNDOT Spec. 3137.
- 2) Fine: MNDOT Spec. 3126.

WATER

1) Clean, fresh and potable, MNDOT Spec. 3906.

AIR ENTRAINING ADmixTURES

1) ASTM C240.

2) Provide entrainment of 4-7 percent by volume.

PORLAND CEMENT

1) ASTM C150, Type I plus an approved or entraining agent, or type IA (entraining Portland cement).

OTHER ADmixTURES

- 1) MNDOT Spec. 3113.
- 2) Calcium chloride or materials containing chlorides or nitrates shall not be allowed.

PROPORTIONING AND DESIGN OF MIXES

1) MNDOT Spec. 2461.3.

Concrete Classifications

- a) Curb and gutter, sloped-formed concrete: 3A22.
 - b) Sidewalk, aprons, incidental concrete, manual curb & gutter: 3A32.
 - c) Concrete pavements or aprons: 3Y43.
 - d) Repair concrete, full strength concrete: 3Y43.
- 3) Concrete Specifications:
- a) 3A22: 1-2 slump, 3900 psi, 4-7% air.
 - b) 3A32: 2-3 slump, 3900 psi, 4-7% air.
 - c) 3Y43: 3-4 slump, 4300 psi, 4-7% air.
 - d) Temperatures of air concrete during placement shall be 50-deg F to 90-deg F.

CONCRETE PLACEMENT

- 1) Place concrete as soon as possible after mixing. Place before initial set has occurred, and in no event after it has contained its water content for more than one hour.
- 2) Avoid overworking concrete or allowing concrete to fall unrestricted for excessive vertical distances, and other situations which can cause segregation of the aggregates.
- 3) Concrete pavements shall be placed in accordance with applicable portions of MNDOT 2301.
- 4) Sidewalks shall be placed in accordance with MNDOT 2521.
- 5) Curb and gutter shall be placed in accordance with MNDOT 2531.

PROTECTION

- 1) Provide adequate protection against rain, steel and snow before and during placement and finishing of concrete.
- 2) Protect concrete from premature drying. Provide temporary covering as required. Keep concrete continuously moist for 7 days.
- 3) Treat concrete with membrane curing compound in accordance with MNDOT 2531.3G.

COLD WEATHER CONCRETE

- 1) Do not place concrete when the atmospheric temperature is below 40 degrees F, or when the concrete is likely to be subjected to freezing temperatures within 24 hours after it has been deposited unless adequate temporary heating is provided.
- 2) Maintain concrete temperature of 40 to 90 degrees F for 3 days. Protect from freezing for the following 5 days.
- 3) No frozen materials may be used in the concrete. Chemicals may not be used to prevent freezing unless approved by the Engineer.
- 4) Perform all cold weather concreting in accord with ACI 308.

HOT WEATHER CONCRETE

- 1) Do not place concrete when the atmospheric temperature is above 100 degrees F.
- 2) Maintain concrete temperature of 40 to 90 degrees F for 3 days. Protect from temperatures over 90 degrees for the following 5 days.
- 3) Thoroughly wet dry porous surfaces before concreting.
- 4) Water reducing admixtures with retarding properties are required for all concrete placed when the temperature exceeds 80 degrees F.
- 5) Perform all hot weather concreting in accord with ACI 305.

FINISHING

1) Provide a finished finish on exterior sidewalks and ramps unless noted otherwise.

QUALITY CONTROL

- 1) The Contractor shall hire an independent testing firm to provide the following tests:
 - a) The independent testing technician shall perform random field testing of the fresh concrete including slump, air content, and temperature (ASTM C143, C173, C231 and C138). One series of the aforementioned tests shall be performed on the last load of concrete.
 - b) The independent testing technician shall cast a set of four compression test cylinders for the first load of concrete as well as 1 set for every 100 cubic yards, or fraction thereof, of concrete thereafter. Compression tests shall be performed on one test cylinder at 7 days and two test cylinders at 28 days. The fourth test cylinder shall be retained in the event of failing compression tests on the 28-day test cylinders.



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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Engineer under the laws of the state of Minnesota.

Brian J. Schultz, PE

BRIAN J. SCHULTZ, PE

12/12/2012

DATE

Revisions

43129

LICENSE NO.

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Sjoquist Project Number

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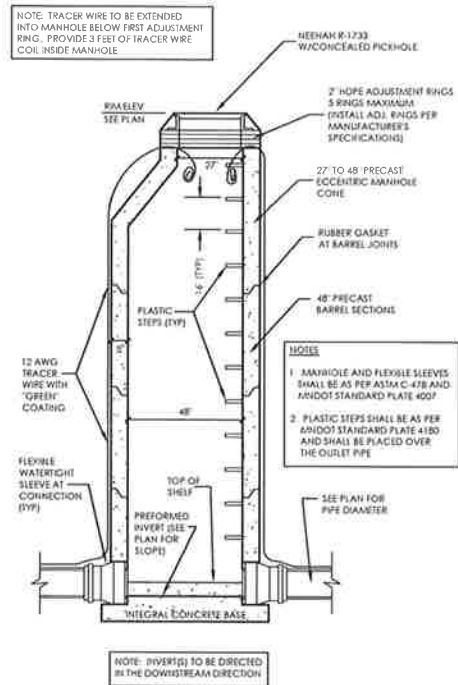
VILLAGE
ORTHODONTICS

830 COUNTY ROAD D WEST

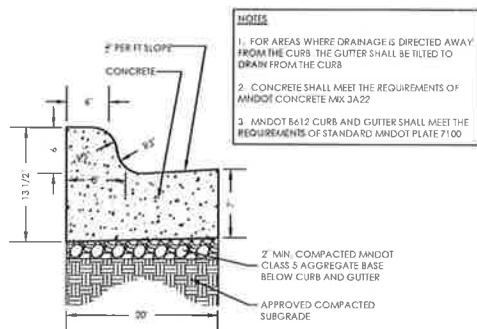
NEW BRIGHTON,
MINNESOTA

GENERAL NOTES
& SPECIFICATIONS

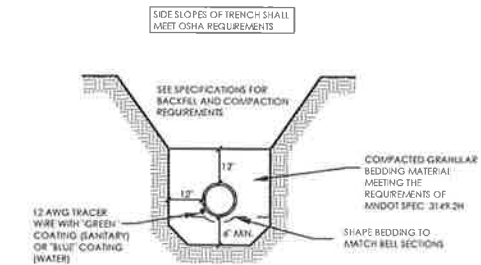
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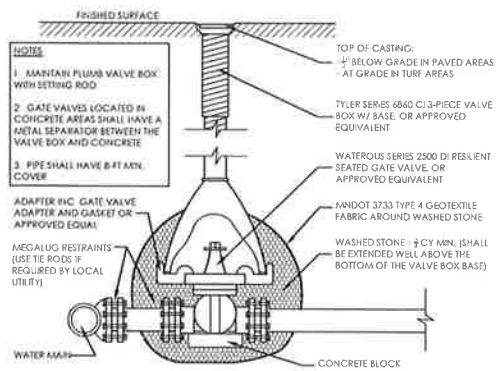
3 SANITARY MANHOLE NTS



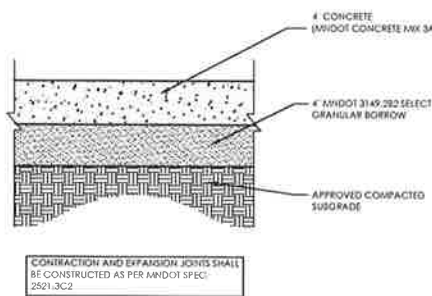
7 CURB & GUTTER (MNDOT B612) NTS



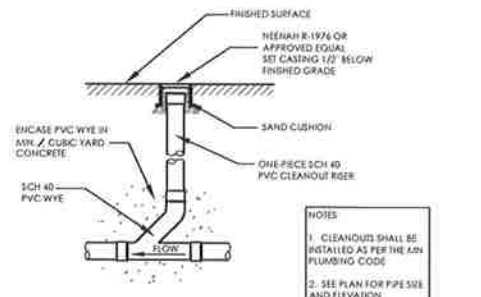
1 PIPE BEDDING DETAIL NTS



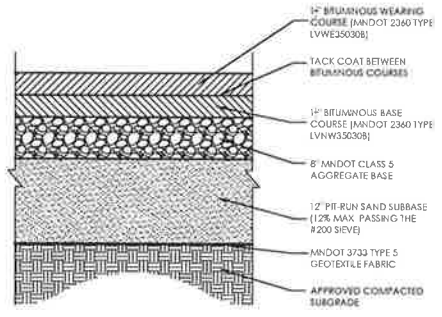
4 GATE VALVE & BOX NTS



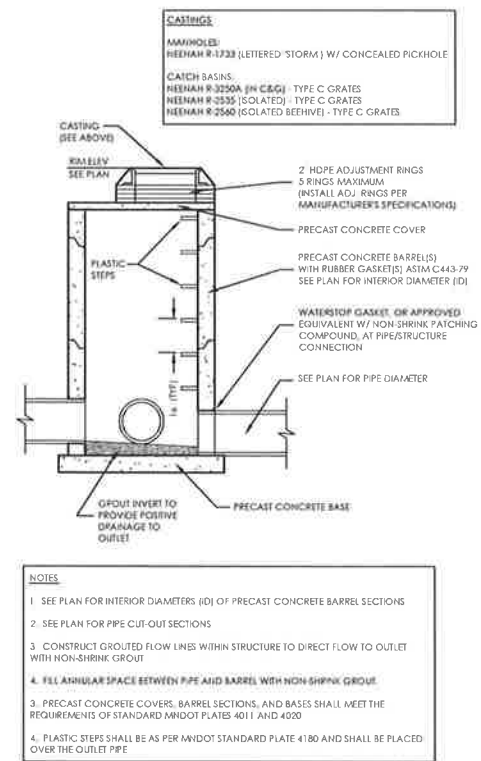
8 CONCRETE SIDEWALK SECTION NTS



2 SANITARY CLEANOUT NTS



5 BITUMINOUS PAVEMENT SECTION NTS



6 STORM MANHOLE OR CATCH BASIN NTS



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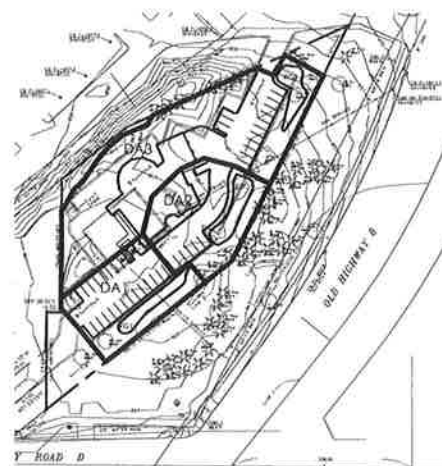
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VILLAGE ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

STANDARD DETAILS

C-100.2



DRAINAGE AREA LAYOUT

SITE IMPERVIOUS SURFACE CALCULATIONS
TOTAL EXISTING IMPERVIOUS AREA = 39,390 SF
TOTAL PROPOSED IMPERVIOUS AREA = 26,770 SF
ALL IMPERVIOUS AREA IS REDEVELOPED
WATER QUALITY VOLUME = 0.8 IN OFF PROPOSED IMPERVIOUS SURFACING

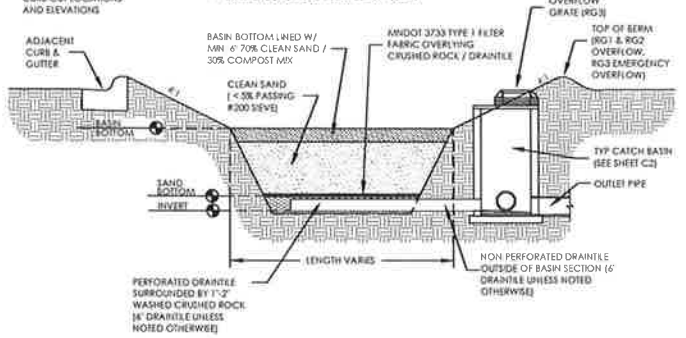
RAIN GARDEN #1 (RG1) CALCULATIONS
TOTAL REDEVELOPED IMPERVIOUS AREA = 7,250 SF
IMPERVIOUS AREA OF PORTION OF FUTURE BUILDING EXPANSION = 1,500 SF
TOTAL PROPOSED AND FUTURE IMPERVIOUS AREA = 8,750
REQUIRED INFILTRATION VOLUME = 8,750 SF X 0.8 IN = 7,000 CF
AREA OF 862.75 CONTOUR (BASIN BOTTOM) = 610 SF
AREA OF 862.75 CONTOUR (BASIN OVERFLOW) = 1,276 SF
PROVIDED INFILTRATION VOLUME (AVERAGE END AREA METHOD)
[(610 SF + 1,276 SF) / 2] * 0.75 FT = 707 CF
UNDERLYING SOILS: POORLY GRADED SANDS (SP)
IMPORTED (SP) SANDS WILL BE PLACED IN THE RAIN GARDEN AREA AND ROUTE INFILTRATING STORM WATER TO UNDERLYING DRAINILE
ASSUMED GROUNDWATER ELEVATION: BELOW 840.00
(BASED ON 1/16/12 GEOTECHNICAL REPORT BY CHOSEN VALLEY TESTING (CVT))
ASSUMED INFILTRATION RATE: 0.80 IN/HR
(BASED ON MN STORM WATER MANUAL)
MAXIMUM TIME OF INFILTRATION = 48 HRS, 0 MIN
DESIGN TIME OF OF INFILTRATION = 9 IN (0.75-FT) / 0.80 IN/HR = 11 HRS, 15 MIN
(ASSUMING FULL SYSTEM TO BASIN OUTLET)

RAIN GARDEN #2 (RG2) CALCULATIONS
TOTAL REDEVELOPED IMPERVIOUS AREA = 7,540 SF
REQUIRED INFILTRATION VOLUME = 7,540 SF X 0.8 IN = 6,032 CF
AREA OF 861.5 CONTOUR (BASIN BOTTOM) = 1,022 SF
AREA OF 862.25 CONTOUR (BASIN OVERFLOW) = 1,624 SF
PROVIDED INFILTRATION VOLUME (AVERAGE END AREA METHOD)
[(1,022 SF + 1,624 SF) / 2] * 0.75 FT = 707 CF
UNDERLYING SOILS: POORLY GRADED SANDS (SP)
IMPORTED (SP) SANDS WILL BE PLACED IN THE RAIN GARDEN AREA AND ROUTE INFILTRATING STORM WATER TO UNDERLYING DRAINILE
ASSUMED GROUNDWATER ELEVATION: BELOW 840.00
(BASED ON 1/16/12 GEOTECHNICAL REPORT BY CHOSEN VALLEY TESTING (CVT))
ASSUMED INFILTRATION RATE: 0.80 IN/HR
(BASED ON MN STORM WATER MANUAL)
MAXIMUM TIME OF INFILTRATION = 48 HRS, 0 MIN
DESIGN TIME OF OF INFILTRATION = 9 IN (0.75-FT) / 0.80 IN/HR = 11 HRS, 15 MIN
(ASSUMING FULL SYSTEM TO BASIN OUTLET)

RAIN GARDEN #3 (RG3) CALCULATIONS
TOTAL REDEVELOPED IMPERVIOUS AREA = 12,190 SF
IMPERVIOUS AREA OF PORTION OF FUTURE BUILDING EXPANSION = 1,500 SF
TOTAL PROPOSED AND FUTURE IMPERVIOUS AREA = 13,690
REQUIRED INFILTRATION VOLUME = 13,690 SF X 0.8 IN = 11,032 CF
AREA OF 856.5 CONTOUR (BASIN BOTTOM) = 458 SF
AREA OF 857.75 CONTOUR (BASIN OVERFLOW CATCH BASIN) = 1,350 SF
PROVIDED INFILTRATION VOLUME (AVERAGE END AREA METHOD)
[(458 SF + 1,350 SF) / 2] * 1.25 FT = 1,130 CF
UNDERLYING SOILS: POORLY GRADED SANDS (SP)
IMPORTED (SP) SANDS WILL BE PLACED IN THE RAIN GARDEN AREA AND ROUTE INFILTRATING STORM WATER TO UNDERLYING DRAINILE
ASSUMED GROUNDWATER ELEVATION: BELOW 840.00
(BASED ON 1/16/12 GEOTECHNICAL REPORT BY CHOSEN VALLEY TESTING (CVT))
ASSUMED INFILTRATION RATE: 0.80 IN/HR
(BASED ON MN STORM WATER MANUAL)
MAXIMUM TIME OF INFILTRATION = 48 HRS, 0 MIN
DESIGN TIME OF OF INFILTRATION = 15 IN (1.25-FT) / 0.80 IN/HR = 18 HRS, 45 MIN
(ASSUMING FULL SYSTEM TO BASIN OUTLET)

RAIN GARDEN ELEVATIONS				
RAIN GARDEN	DRAINILE INVERT	SAND BOTTOM	BASIN BOTTOM	OVERFLOW*
RG1	859.00	859.30	862.00	862.75
RG2	856.30	859.00	861.50	862.25
RG3	853.30	854.00	856.50	857.75**

* ONLY RG3 WILL HAVE A CATCH BASIN OVERFLOW OUTLET. RG1 AND RG2 WILL SURFACE OVERFLOW.
** RG3 EMERGENCY OVERFLOW BEAM = 658.40



1 INFILTRATION BASIN (ADJACENT TO CURB)

RAIN GARDEN NOTES:

- CONSTRUCTION EQUIPMENT SHALL NOT BE DRIVEN ACROSS RAIN GARDEN AREAS. RAIN GARDEN AREAS SHALL BE EXCAVATED WITH A BACKHOE STATIONED OUTSIDE OF THE AREA.
- DURING CONSTRUCTION OF THE ADJACENT PARKING AREAS AND BUILDINGS, THE RAIN GARDEN AREAS SHALL BE PROTECTED FROM TRAFFIC AND SEDIMENT WITH SILT FENCE.
- THE BOTTOM OF THE RAIN GARDENS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 24 INCHES WITH THE USE OF APPROPRIATE EQUIPMENT (TILER, RIPPER, ETC.). AFTER SCARIFICATION, THE BASIN SHALL BE LINED WITH A MINIMUM OF 6 INCHES OF A 70% CLEAN SAND / 30% COMPOST MIX, WHICH SHALL BE PLACED AS LOOSELY AS POSSIBLE.
- ONCE THE INFILTRATION BASINS ARE COMPLETED AND THE SITE HAS BEEN STABILIZED, THE CONTRACTOR SHALL ARRANGE AND PAY FOR TESTING THE INFILTRATION RATES OF THE BOTTOMS OF THE BASINS. THE TEST RESULTS SHALL BE SUBMITTED TO THE CITY AND THE ENGINEER.
- FINAL STABILIZATION OF THE INFILTRATION BASINS SHALL NOT BE COMPLETED UNTIL THE UPSTREAM DRAINAGE AREAS HAVE BEEN STABILIZED.

GRADING NOTES:

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS, AND RIM AND INVERT ELEVATIONS, OF EXISTING DRAINAGE AND SANITARY STRUCTURES, LOCATION AND SIZE OF EXISTING SANITARY, WATER, AND STORM SEWER STUBS, AND EXISTING GRADES SHALL ALSO BE VERIFIED.
- EXISTING TOPOGRAPHICAL INFORMATION WAS OBTAINED FROM A TOPOGRAPHICAL SURVEY PROVIDED BY SJOQUIST ARCHITECTS, AND COMPLETED BY HEDLUND PLANNING ENGINEERING SURVEYING, EAGAN, MN.
- BENCHMARKS:
 - TOP NUT OF HYDRANT LOCATED JUST EAST OF NE CORNER OF SITE - ELEV = 858.6
 - TOP NUT OF HYDRANT LOCATED AT NE CORNER OF COUNTY ROAD D AND OLD HIGHWAY 8 INTERSECTION - ELEV = 864.7
- NOTIFY ENGINEER IMMEDIATELY IF ANY INCONSISTENCIES ARE DISCOVERED BETWEEN ACTUAL SITE CONDITIONS AND WHAT IS SHOWN ON THE PLANS, WHICH ARE SIGNIFICANT ENOUGH TO ALTER THE INTENT OF THE DRAWINGS.
- IF REQUIRED BY THE MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY, THE OWNER OR CONTRACTOR SHALL OBTAIN A PLUMBING PERMIT PRIOR TO THE INSTALLATION OF ANY STORM SEWER UTILITIES.
- THE CONTRACTOR SHALL CONTACT COPHER ONE CALL AT (800) 252-1166 FOR A UTILITY LOCATE PRIOR TO THE START OF CONSTRUCTION AND VERIFY LOCATIONS OF UTILITIES BEFORE BEGINNING WORK.
- SEE SHEET C2 FOR STANDARD DETAILS.
- FINISHED ELEVATIONS OF LAWN/GREEN AREAS ADJACENT TO BUILDINGS SHALL BE A MINIMUM OF 6" BELOW FINISHED FLOOR OR TOP-OF-BLOCK ELEVATION.
- CONTRACTOR SHALL PERFORM CALCULATIONS TO VERIFY EARTHWORK QUANTITIES. CONTRACTOR'S BO SHALL BE BASED ON EARTHWORK CALCULATIONS COMPLETED BY THE CONTRACTOR.
- SPOT ELEVATIONS ARE FLOW LINE AND/OR FINISHED GRADES, UNLESS OTHERWISE INDICATED. TOP OF CURB ELEVATIONS ARE 6" ABOVE THE FLOW LINE SPOT ELEVATION SHOWN ON THE PLANS, UNLESS NOTED OTHERWISE.
- EXISTING SPOT ELEVATIONS
- ALL PROPOSED ELEVATIONS ARE TOP OF PAVING OR GUTTER, UNLESS NOTED OTHERWISE. PROPOSED ELEVATIONS ARE INTENDED TO PROVIDE POSITIVE DRAINAGE TOWARDS CATCH BASINS AND/OR CULVERTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE REQUIRED ELEVATIONS, WHICH WILL PROMOTE POSITIVE DRAINAGE THROUGHOUT THE PROJECT SITE.

NOTE: CADD FILES FOR ESTIMATING EARTHWORK QUANTITIES ARE AVAILABLE TO CONTRACTORS FOR PREPARING BIDS. IN ORDER TO RECEIVE THE CADD FILES THE CONTRACTOR WILL NEED TO SIGN A HOLD HARMLESS AGREEMENT PROVIDED BY SCHULTZ ENGINEERING & SITE DESIGN, AND AGREE TO PAY A \$30 PROCESSING FEE. THE CADD FILES WILL BE RELEASED UPON RECEIPT OF THE CHECK.



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VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

SCALE: 1" = 30'

GRADING PLAN

C-101.1

PROJECT INFORMATION

Project Description

This project will consist of an orthodontics clinic with attached garage, with a footprint totaling approximately 7,600 square feet, as well as new paved parking and driveway areas, and sidewalks.

Impervious Surface Tabulation

Existing Impervious Area	0.90 acres
Proposed Impervious Area	6.66 acres
Net Impervious Area Increase	0.24 acres

Permanent Site Drainage

Site drainage will be routed to one of three rain gardens via sheeting, gullies, and curb cuts to be constructed on site. The rain gardens have been designed to inhale drainage from 0.8' of runoff off redevelopment impervious surfaces as per Rice Creek Watershed District requirements. For larger events, the basins have been provided with surface overflow and catch basin overflow outlets, which will route treated storm water to public storm sewer. Due to the significant decrease in impervious surfacing from what was existing to what is proposed runoff from 2, 10, and 100-year storm events will be less than what was existing. Rain garden calculations have been completed by the Engineer and are available upon request.

Receiving Surface Waters

The following surface waters could receive storm water runoff from this project, and are within 1 mile of the project site:

Surface Water	Type of Surface Water	Impaired Water?	Special Water?	USEPA Approved TMDL for Impaired Water?	Comments
James Lake	Lake	Yes	No	N/A	

SEDIMENT AND OTHER POLLUTANTS

This SWPPP has been designed mainly to provide erosion and sediment control of naturally occurring soils at this site (i.e., sands, loams, and clays). Although this SWPPP does address pollution prevention of other man-made materials, it is assumed that these materials will consist of debris from existing structures and pavements to be demolished, or debris and chemicals (e.g., fuels, new paints, etc.) resulting from new construction.

There are no known solid wastes or hazardous materials buried below grade at this site. If such wastes or hazardous materials are discovered during construction, the SWPPP Coordinator (described below) will be responsible for notifying the Engineer. The SWPPP will then be revised to address the presence and disposal of these additional pollutants.

EROSION PREVENTION AND SEDIMENT CONTROL RESPONSIBILITIES

SWPPP Design Engineer and Qualifications

Design Engineer	Brian J. Schultz, PE
Training Course	Design of SWPPP Recent
Training Entity	University of Minnesota
Instructor	Duane Stenlund
Dates of Training Course	November 18, 2010
Total Training Hours	6.5

* Design of SWPPP is a certification course offered by the University of Minnesota. The Engineer's certification for Design of SWPPP is current, and will expire May 31, 2014. Certification documentation is on file at the Engineer's office and a copy can be provided upon request.

SWPPP Coordinator and Qualifications

The Excavation Contractor shall provide an individual who shall serve as the SWPPP Coordinator for this project. The SWPPP coordinator shall oversee the implementation of the SWPPP, as well as the necessary inspections (described below) of erosion prevention and sediment control BMPs. The SWPPP Coordinator shall also oversee the installation, maintenance, and repair of the BMPs. It is to be completed in accordance with this SWPPP. The SWPPP Coordinator shall be responsible for the items listed above during the period from the start of the project to the establishment of final stabilization. During this period, the SWPPP Coordinator, or their assigned, qualified (see below) representative shall be available for an on-site inspection within 72 hours upon request by the MPCA.

It shall be the Excavation Contractor's responsibility to complete the table below, which will identify the SWPPP Coordinator and that person's qualifications. This person shall acknowledge that he/she has been assigned to serve as SWPPP Coordinator and will be overseeing the items listed in this section, by providing their signature in the space below. Please note that this SWPPP will not be considered complete if the table below is not filled in.

* Typically, the identity of the SWPPP Coordinator is unknown until the project is awarded. The SWPPP Coordinator may be identified at the project Preconstruction Conference.

SWPPP Coordinator	
Company Name	
Office Phone #	
Cell Phone #	
Training Course	
Training Entity	
Instructor	
Dates of Training Course	
Total Training Hours	

I, _____, hereby
(Printed Name)
acknowledge that I will be serving as SWPPP
Coordinator for this project and will be responsible
for overseeing the items identified in this section.

(Signature)

(Date)

The SWPPP Coordinator may assign other personnel to supervise or perform the duties listed above. However, in completing the duties listed above, at least one person that be trained in erosion prevention and sediment control as related to that particular part of the SWPPP.

If the SWPPP Coordinator chooses to delegate some of the duties and responsibilities listed above to other personnel, a list of the personnel, as well as their qualifications, shall be kept with and shall become part of this SWPPP. The qualifications shall be documented in a manner similar to the table shown above. A copy of this list shall be provided to the Engineer.

Once the project has been completed and accepted by the Owner, and final stabilization has been established and "Notice of Termination" submitted to the MPCA, the Owner assume responsibility for the long term maintenance of the storm water management system.

The SWPPP Coordinator shall be responsible for ensuring that the Excavation Contractor properly disposes of the temporary erosion and sediment control measures within 30 days after site stabilization is achieved or after the temporary measures are no longer needed.

Record Retention

The SWPPP and associated records shall be stored and maintained by an employee or representative of the Owner for the duration specified in the MPCA's General Storm Water Permit. Responsibility for overseeing the records will be transferred to another employee or representative should the current personnel become uninvolved with the project or Owner.

BMP INSPECTIONS

Inspection Frequency

The SWPPP Coordinator shall inspect, or designate someone else who is qualified to inspect (see above), the construction site erosion prevention and sediment control BMPs per the following time frames:

1) Once every 7 days.

2) Within 24 hours of a rain event (1/2" or greater over 24 hours).

Inspections shall be conducted per the time frames listed above with the following exceptions:

1) Where parts of the construction site have permanent cover, but work remains on other parts of the site, inspections of areas with permanent cover may be reduced to once per month.

2) Where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, the site must be inspected for a period of 12 months (inspections may be suspended during frozen ground conditions). Following the 12th month of permanent cover with no construction activity, inspections may be terminated until construction activity is once again initiated or sooner if notified in writing by the MPCA.

3) Where work has been suspended due to frozen ground conditions, the required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or prior to resuming construction, whichever occurs first.

Inspection Records

The SWPPP Coordinator shall maintain inspection records, which shall include the following:

1) Date and time of inspections.

2) Name of person(s) conducting inspections.

3) Findings of inspections, including recommendations for corrective actions.

4) Corrective actions taken (including dates, times, and party completing maintenance activities).

5) Date and amount of any rainfall events greater than 1/2" in 24 hours.

6) It is recommended that the Contractor install a rain gauge at the construction site.

7) Documentation of any changes to the SWPPP made during construction.

8) If the SWPPP coordinator observes that a BMP fails on a regular basis and believes that it is ineffective, it shall be his/her responsibility to notify the Engineer of such deficiencies. The Engineer may then amend the SWPPP (see "Amending the SWPPP").

Notes: Copies of all inspection records shall be submitted to the Engineer.

AMENDING THE SWPPP

During the construction of this project it may become necessary to amend this SWPPP. Should the responsibility of installing, inspecting and maintaining the erosion and sediment control devices and techniques described in this SWPPP be transferred from the current Contractor to another Contractor, or from the current Contractor to the Owner, this SWPPP shall be updated accordingly. The Owner will also be required to complete an "Amend Modification Form".

Should it be determined during construction, by the SWPPP Coordinator, Engineer, or Regulatory Officials that deficiencies in this SWPPP exist, or if significant changes are made to the design/scope of the project that impact erosion prevention and sediment control, the Engineer shall be notified immediately. The Engineer will then review potential deficiencies and/or significant changes to project design/scope, and make necessary changes to the SWPPP.

After changes are made to the SWPPP, the Engineer will issue the necessary documentation, reflecting the changes, to the owner and to the SWPPP Coordinator. The SWPPP Coordinator shall be responsible to make sure that this documentation is added to the on-site SWPPP copy and that the changes described in the documentation is implemented on site.

EROSION PREVENTION AND SEDIMENT CONTROL BMPs

Standards and References

Materials and construction methods of all BMPs included in this SWPPP shall be as per the Minnesota Department of Transportation (MNDOT) Standard Specifications for Construction, latest edition. The Contractor and SWPPP Coordinator shall obtain a current copy of MNDOT Standard Specifications for Construction and familiarize themselves with the specification sections applicable to this SWPPP, as there are several BMPs that specify reference these sections.

The Contractor and SWPPP Coordinator shall be expected to be familiar with the applicable MNDOT specification sections during construction. No additional compensation will be paid to the Contractor for additional work due to unfamiliarity with these specification sections.

Undisturbed Areas

If shown on the plan, the Contractor shall delineate areas that are not to be disturbed on the site. This may be done with flags, stakes, signs, silt fence, etc., and shall be completed prior to the start of any grading operations. Regardless of the delineation method the Contractor chooses to use, the Contractor must communicate to his/her personnel and subcontractors that these areas are not to be disturbed and construction equipment (including trucks and personal vehicles) shall not be allowed in these areas.

Temporary and Permanent Stabilization

All exposed soil areas (including stockpiles) shall be provided with temporary or permanent cover within 7 days of construction activity, temporary or permanent covering of that portion of the site. Temporary or permanent drainage ditches or swales, which drain all-site or to a surface water, and are within 200 lineal feet of the property line or surface water shall be provided with temporary or permanent cover within 24 hours of construction.

Temporary Cover:

If the Contractor chooses to halt grading operations in a portion of the site (or the whole site) for a period exceeding 7 days, and grading operations (rough or finish grading) in the affected area shall be completed, temporary cover shall be placed. Affected areas consisting of drainage ditches or swales connected to, and within 200 lineal feet of a property line or surface water shall be provided with temporary cover within 24 hours of connection. Depending on the Contractor's schedule, the temporary cover shall consist of one of the following BMPs:

1) Disconnected Mulch.

a) Disconnected mulch may be used in an area of the site (or the whole site) if the Contractor is halting grading operations for a period that is relatively short, but exceeds 14 days.

b) The mulch shall be type 3 per MNDOT Spec. 3862.

c) An adequate quantity of mulch shall be evenly distributed to achieve 90% coverage of the exposed soils.

d) Mulch shall be placed as per MNDOT 2575.3C.

e) All mulch shall be disc anchored as per MNDOT 2575.3G. Prior to the placement and disanchoring of the mulch, the soils shall be loosened and the area smooth-tough graded per MNDOT 2575.3B.

f) Any areas that are exposed as a result of wind action after the initial mulch placement shall be covered with additional mulch to maintain 90% coverage.

2) Temporary Seeding with Mulch.

a) Temporary seeding with mulch may be used in areas of the site (or the whole site) if the Contractor is halting grading operations for a period that is relatively long. Although mulch is needed to be applied as described above, once the temporary seeding/furf is established, the mulch will no longer need to be maintained. The temporary seeding/furf will require very little maintenance.

b) Prior to the sowing of temporary seed, the soils shall be loosened and the area smooth-tough graded per MNDOT 2575.3B.

c) Contractor shall utilize Seed Mixes 100, 110, or 130 per MNDOT Spec. 3876 for temporary seeding.

d) Temporary seeding shall be sown per MNDOT Spec. 2575.3D.

e) Once temporary seeding has been sown, mulch shall be placed over the area as described above.

Permanent Cover:

Upon completion of finish grading and/or placement of topsoil, all exposed areas shall be provided with permanent cover within 7 days. This includes areas designated for impervious surfacing (e.g., buildings, pavement/gravel bases, sidewalks, etc.). Where the construction schedule will not allow for the placement of the permanent impervious surfacing within 7 days of the completion of finish grading, temporary cover shall be provided in these areas, as described above, until the permanent impervious surfacing can be constructed. Affected areas consisting of drainage ditches or swales connected to, and within 200 lineal feet of a property line or surface water, shall be provided with permanent cover within 24 hours of connection.

Areas designated for permanent turf establishment shall be provided with one or more of the following BMPs (see plan):

1) Permanent Seeding with Mulch.

a) Unless otherwise noted on the plans, all areas designated for turf establishment shall be provided with permanent seeding.

b) In addition to the plan included as part of this SWPPP, the Contractor shall verify if a Landscaping Plan has been included in the plans by the Architect. If a Landscape Architect has specified higher quality permanent cover (e.g., sod hydroseeding, etc.), the Contractor shall provide this permanent cover in lieu of the permanent seeding specified in this SWPPP.

c) Prior to the sowing of permanent seed, the soils shall be loosened and the area smooth-tough graded per MNDOT 2575.3B.

d) Contractor shall utilize Seed Mix 260 per MNDOT Spec. 3876 for permanent seeding.

e) Permanent seeding shall be sown per MNDOT Spec. 2575.3D.

f) Once permanent seeding has been sown, mulch shall be placed over the area as described above (under Temporary Cover). Unless noted otherwise.

2) Erosion Control Blanket.

a) Erosion control blanket shall be placed in areas as shown on the plan included in this SWPPP. These areas shall still be provided with permanent seeding, as described above, beneath the erosion control blanket.

b) Erosion control blanket shall meet the requirements indicated in MNDOT Spec. 3865. See plan for category(s) of erosion control blanket(s).

c) Erosion control blanket shall be installed as per MNDOT Spec. 2575.3J2.

d) Erosion control blanket specified in drainage ditches and swales connected to, and within 200 lineal feet, of a property line or surface water shall be installed within 24 hours of the completion of finish grading (including permanent seeding).

3) Riprap.

a) Riprap shall be placed in areas as shown on the plan included in this SWPPP.

b) All riprap shall be underlain with type 4 geotextile fabric. The fabric shall meet the requirements of MNDOT Spec. 3733 and shall be installed as per MNDOT Spec. 2571.3B2.

c) Riprap materials shall meet the requirements of MNDOT Spec. 2401, and shall be Class 3, unless noted otherwise on the plans.

d) Riprap shall be considered "Random Riprap" and shall be placed as per MNDOT Spec. 2571.

e) Although it is permitted for the riprap to be placed with machinery, it will be necessary for the Contractor to hand place some of the riprap in order to provide a dense, well-keyed layer of stones with the least practical quantity of void space.

f) The minimum thickness of the riprap shall be 18 inches, unless otherwise noted on the plans.

g) Riprap designated at the end of pipe outlets shall be placed within 24 hours of installation of the pipe outlet and section.

h) Riprap specified in drainage ditches and swales connected to, and within 200 lineal feet, of a property line or surface water shall be installed within 24 hours of the completion of finish grading.

Sediment Control

The following sediment control BMPs shall be implemented as part of the project:

1) Silt Fence.

a) Silt fence shall be installed at the locations shown on the plan included in this SWPPP.

b) Silt fence shall be machine sliced and materials shall meet the requirements of MNDOT Spec. 3886.

c) Silt fence shall be installed as per MNDOT Spec. 2573.3C1.

d) Silt fence shall be installed prior to any upgradient grading operations, and shall remain in place and maintained adequately until upgradient areas achieve Final Stabilization (see below).

a) Silt fence shall be repaired or replaced if damaged during, or after, rain events, or if accumulated sediment on the upstream side of the fence reaches 1/3 of the height of the fence. Repair or replacement of silt fence shall be completed within 24 hours of discovery.

1) Portions of silt fence may be removed to accommodate short-term activities, such as vehicle passage. Short-term activities shall be completed as quickly as possible, and new silt fence installed immediately after completion of the short-term activity. If rainfall is imminent or forecasted in the near future, new silt shall be installed regardless of if the short-term activity has been completed or not. The Contractor is advised to schedule short-term activities during dry weather or as much as practicable. No additional compensation will be paid due to additional silt fence associated with short-term activities.

g) Temporary soil stockpiles shall be placed on the site in areas upgradient from silt fence. Where the Contractor chooses to place temporary soil stockpiles outside designated silt fenced areas, the stockpiles shall be surrounded by additional silt fence. Under no circumstances shall temporary soil stockpiles be placed over surface water, curb and gutter, catch basins, culvert inlets or outlets, or ditches.

2) Catch Basin Protection.

a) WIMCO Road Drain protection devices, as manufactured by WIMCO, shall be used for catch basin protection on this project. WIMCO can be contacted at (952)-233-3055, and their web page is www.roaddrain.com.

b) "Road Drain Top Slab" devices shall be installed at all catch basin locations immediately after placement of the catch basin structures. "Road Drain Top Slab" devices shall remain in place and be adequately maintained until permanent surfacing is constructed (i.e., curb and gutter, patch base, pavement), and/or gravel subgrade. In areas designated for turf establishment, "Road Drain Top Slab" devices shall remain in place until Final Stabilization of upgradient areas is established.

c) Upon construction of the permanent surfacing, the "Road Drain Top Slab" devices shall be replaced with the WIMCO product specified on the plans. The WIMCO devices shall remain in place until Final Stabilization of upgradient areas has been established.

d) The Contractor shall install and maintain the catch basin protection devices as per the manufacturer's instructions and specifications.

3) Culvert Inlet Protection.

a) Culvert inlet protection shall be provided at all culvert inlet locations immediately after construction of the culvert. See plan included in this SWPPP for culvert inlet locations.

b) Culvert inlet protection shall consist of geotextile fabric wrapped around, and completely covering the inlet end section. The geotextile fabric shall be the same fabric used in silt fence applications and meet the requirements of MNDOT Spec. 3886.

c) The culvert inlet protection shall remain in place and adequately maintained until Final Stabilization of upgradient areas has been established.

d) Culvert inlet protection shall be repaired or replaced if damaged during, or after, rain events, or if accumulated sediment reaches 1/2 of the diameter of the culvert pipe. Repair or replacement of culvert inlet protection shall be completed within 24 hours of discovery.

4) Temporary Rock Construction Entrance.

a) Temporary rock construction entrances shall be installed at the locations shown on the plan included in this SWPPP. See detail for temporary rock entrance design.

b) If the Contractor chooses to access the site from locations other than where temporary rock entrances are specified on the plans, additional temporary rock entrances shall be placed at these locations, as well.

c) Temporary rock entrance shall be constructed prior to the start of grading operations, and shall remain in place and be adequately maintained until Final Stabilization has been established.

d) Temporary rock entrances shall be maintained in such a manner that the entrances prevent sediment tracking onto adjacent sheets. If a temporary rock entrance is found to be ineffective, it shall be replaced or improved within 24 hours of discovery.

e) The Contractor has the option to place type 4 geotextile fabric beneath the temporary rock entrance. The fabric may extend the life of the entrance as it will reduce rock "sinking" into the underlying soil. If the Contractor chooses to use fabric, it should meet the requirements of MNDOT Spec. 3733 and shall be installed as per MNDOT Spec. 2571.3B2.

f) If sediment tracking from the site is discovered on adjacent streets, the sediment shall be removed with a street sweeper or other approved method within 24 hours of discovery. This sediment may be returned and graded over exposed areas of the site, or disposed of off-site per MPCA requirements.

5) Filler Logs.

a) Filler logs shall be installed at the locations shown on the plan included in this SWPPP.

b) Filler logs shall consist of Type Wood Fiber blanks and meet the requirements of MNDOT Spec. 3877.

c) Filler logs shall be installed as per MNDOT Spec. 2573.3J.

d) Filler logs shall be installed immediately after placement of erosion control blanket.

e) Filler logs shall remain in place for the life of the project, and shall be allowed to degrade naturally.

Dewatering

If dewatering of sandy subsoil is required for this project, the pump discharge shall be treated prior to discharge all-site or into a surface water. Treatment of discharge shall be achieved with the use of a "Dandy Dewatering Bag" as manufactured by Dandy Products, Inc. Dandy Products, Inc. can be contacted at (877) 307-0141, and their web page is www.dandyproducts.com. The "Dandy Dewatering Bag" shall be installed, utilized, and maintained per the manufacturer's instructions and specifications.

Once dewatering water has been treated, it may be discharged off-site or to a surface water. The discharge shall be visually checked to ensure that it is relatively clean and not visibly different from any receiving waters. If discharge is noticeably "dirty," the Engineer shall be contacted as additional treatment methods may be necessary.

Adequate erosion control shall be provided at the point of discharge if it is located in an area with exposed soils or established turf. The erosion control may consist of temporarily placed riprap, or other approved energy dissipation measures. The type of erosion control measure shall be at the Contractor's discretion, depending on the location of the dewatering discharge and the unique site characteristics. The erosion control measures shall be effective and shall be maintained adequately such that no erosion occurs at the point of discharge.

Pollution Prevention Management

Solid waste accumulated during construction, including collected sediment, construction materials, floating debris, construction debris, paper, plastics, and other solid wastes will be disposed of in accordance with MPCA disposal requirements.

Hazardous materials, including petroleum products, paint, and other hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks, and other discharge. Storage areas will be provided to protect the hazardous material from vandals, and shall be clearly marked. Hazardous materials shall be stored and disposed of in accordance with MPCA requirements.

External washing and maintenance of construction equipment and vehicles will be limited to a defined area of the site, which shall be at the discretion of the Contractor. The Contractor shall mark this area of the site with signs and/or other appropriate devices, and shall communicate to his/her personnel and subcontractors that external washing shall be limited to only this area of the site. Runoff from external washing shall be contained in a device similar to a concrete washout (see below), where it will be prevented from infiltrating into the underlying soils. Collected runoff shall be disposed of in accordance with MPCA requirements. No engine degreasing is allowed on-site.

Liquid and solid wastes generated by concrete washout operations shall be collected in a leak-proof containment facility or impermeable liner. The Contractor shall construct a concrete washout area per the detail included in this SWPPP, or an equivalent device approved by the Engineer. The location of the concrete washout area shall be at the discretion of the Contractor. The Contractor shall mark the concrete washout area with signs and/or other appropriate devices, and shall communicate to his/her personnel and subcontractors that concrete washout operations shall be limited to only this area of the site. Concrete washout wastes shall be disposed of in accordance with MPCA requirements.

FINAL STABILIZATION

Final Stabilization shall be considered established once the following requirements have been achieved:

1) All soil disturbing activities of the site have been completed and all previously exposed soil areas of the site designated for turf establishment have uniform permanent perennial vegetative cover with a density of 70% over the entire affected area. All impervious surfacing (e.g., buildings, pavements/gravel bases, sidewalks, etc.) have been constructed.

2) All permanent storm water treatment BMPs have been constructed per plan and are functioning properly. All accumulated sediment has been removed from all storm water conveyance systems and storm water treatment BMPs.

3) All temporary synthetic and structural erosion prevention and sediment control BMPs (e.g., silt fence, catch basin protection devices, etc.) have been removed from the site. Temporary BMPs designed to decompose in place (e.g., filler logs, erosion control blanket, etc.) may remain in place.

ADDITIONAL COMMENTS

The Contractor is solely responsible for the cleanup of any wetlands, rivers, streams, lakes, reservoirs, other waters of the State (as defined by the MPCA's General Storm Water Permit), ground or roadway surfaces or other property damaged by construction activity related to this project.

Besides the NPDES permit (MPCA General Storm Water Permit), the Contractor shall also obtain all other necessary local government permits related to erosion and sediment control, if applicable (e.g., Watershed District, County Soil and Water Conservation District, MNDOT, etc.).

This SWPPP is intended to provide a plan for addressing the erosion prevention and storm water management issues associated with this project. It is to be used in conjunction with the project plans, specifications, and the MPCA General Storm Water Permit. In addition to the SWPPP, the Owner, Contractor, and SWPPP Coordinator shall familiarize themselves with the actual requirements indicated in the MPCA General Storm Water Permit (and are responsible for compliance with the permit's terms, requirements, and conditions. The Engineer can provide a copy of the permit upon request).



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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Engineer under the laws of the state of Minnesota.

BRIAN J. SCHULTZ, PE

12/12/2012 43129

DATE LICENSE NO.

Revisions

1220
Sjoquist Project Number
12030
Schultz Eng. Project Number

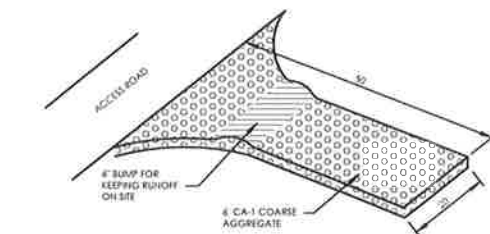
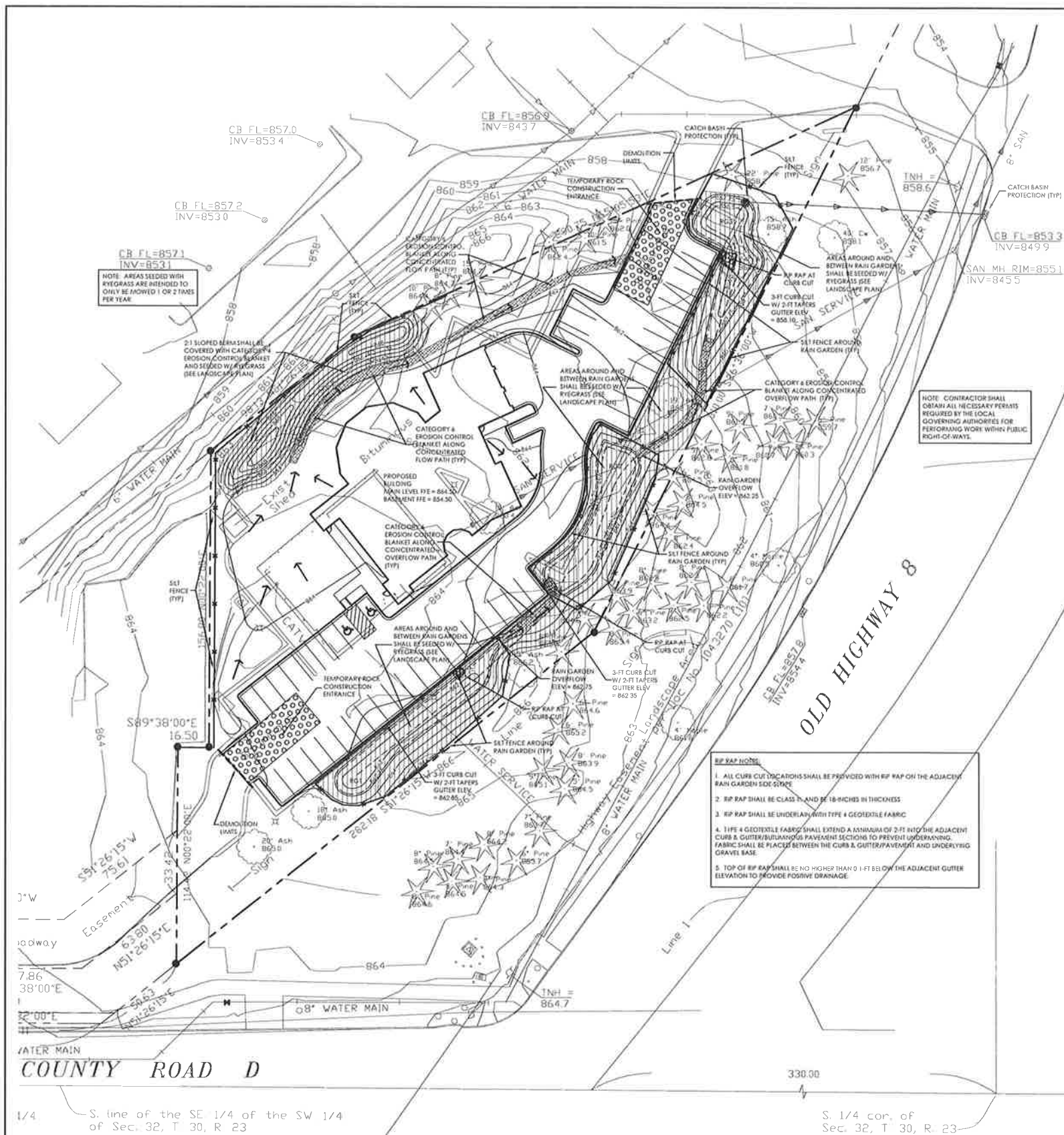
VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST

NEW BRIGHTON,
MINNESOTA

STORM WATER POLLUTION
PREVENTION PLAN - NOTES

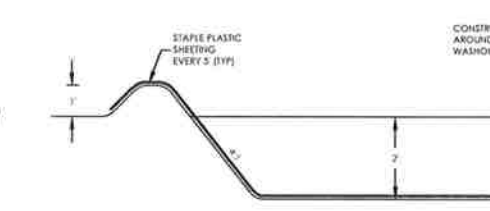
C-101.2



1. THE ROCK ENTRANCE SHALL BE CONSTRUCTED PRIOR TO THE START OF GRADING OPERATIONS.
2. THE ENTRANCE SHALL BE GRADED SUCH THAT POSITIVE DRAINAGE DURING CONSTRUCTION IS PROVIDED.
3. THE ENTRANCE SHALL BE MAINTAINED IN SUCH A CONDITION SUCH THAT IT PREVENTS MUD TRACKING OFF SITE. ADDITIONAL ROCK OR REPLACEMENT OF THE ENTRANCE MAY BE REQUIRED PERIODICALLY IF MUD STARTS TO TRACK OFF SITE.
4. THE ROCK ENTRANCE MAY BE REMOVED JUST PRIOR TO THE PLACEMENT OF AGGREGATE BASE.

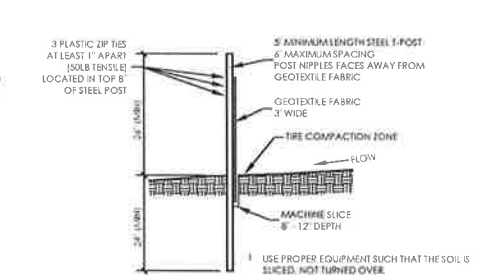
NOTE: PLACING FILTER FABRIC UNDER THE ROCK ENTRANCE MAY REDUCE THE AMOUNT OF MAINTENANCE IT WOULD REQUIRE.

1 TEMPORARY ROCK CONSTRUCTION ENTRANCE



1. BOTTOM OF CONCRETE WASHOUT AREA SHALL BE 10'x10'.
2. CONTRACTOR SHALL REMOVE WASH LIQUID FROM CONCRETE WASHOUT AREA AND DISPOSE OF PER MPCA REQUIREMENTS WHEN WASHOUT AREA BECOMES HALF FULL.
3. CONTRACTOR SHALL SELECT THE MOST OPTIMAL LOCATION FOR THE CONCRETE WASHOUT.

2 CONCRETE WASHOUT




1. USE PROPER EQUIPMENT SUCH THAT THE SOIL IS SLICED, NOT TURNED OVER.
2. AFTER SILT FENCE INSTALLATION, COMPACT THE SOIL IMMEDIATELY NEXT TO THE GEOTEXTILE BY DRIVING OVER IT WITH A TRACTOR TIRE AT LEAST TWICE.

3 SILT FENCE (MACHINE SLICED)

RIP RAP NOTE:

1. ALL CURB CUT LOCATIONS SHALL BE PROVIDED WITH RIP RAP ON THE ADJACENT RAIN GARDEN SIDE SLOPE.
2. RIP RAP SHALL BE CLASS II, AND BE 18-INCHES IN THICKNESS.
3. RIP RAP SHALL BE UNDERLAIN WITH TYPE 4 GEOTEXTILE FABRIC.
4. TYPE 4 GEOTEXTILE FABRIC SHALL EXTEND A MINIMUM OF 3-FT INTO THE ADJACENT CURB & GUTTER/SUBURBAN PAVEMENT SECTIONS TO PREVENT UNDERMINING. FABRIC SHALL BE PLACED BETWEEN THE CURB & GUTTER/PAVEMENT AND UNDERLYING GRAVEL BASE.
5. TOP OF RIP RAP SHALL BE NO HIGHER THAN 0.1-FT BELOW THE ADJACENT GUTTER ELEVATION TO PROVIDE POSITIVE DRAINAGE.



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BRIAN J. SCHULTZ, PE.
12/12/2012 43129
DATE LICENSE NO.
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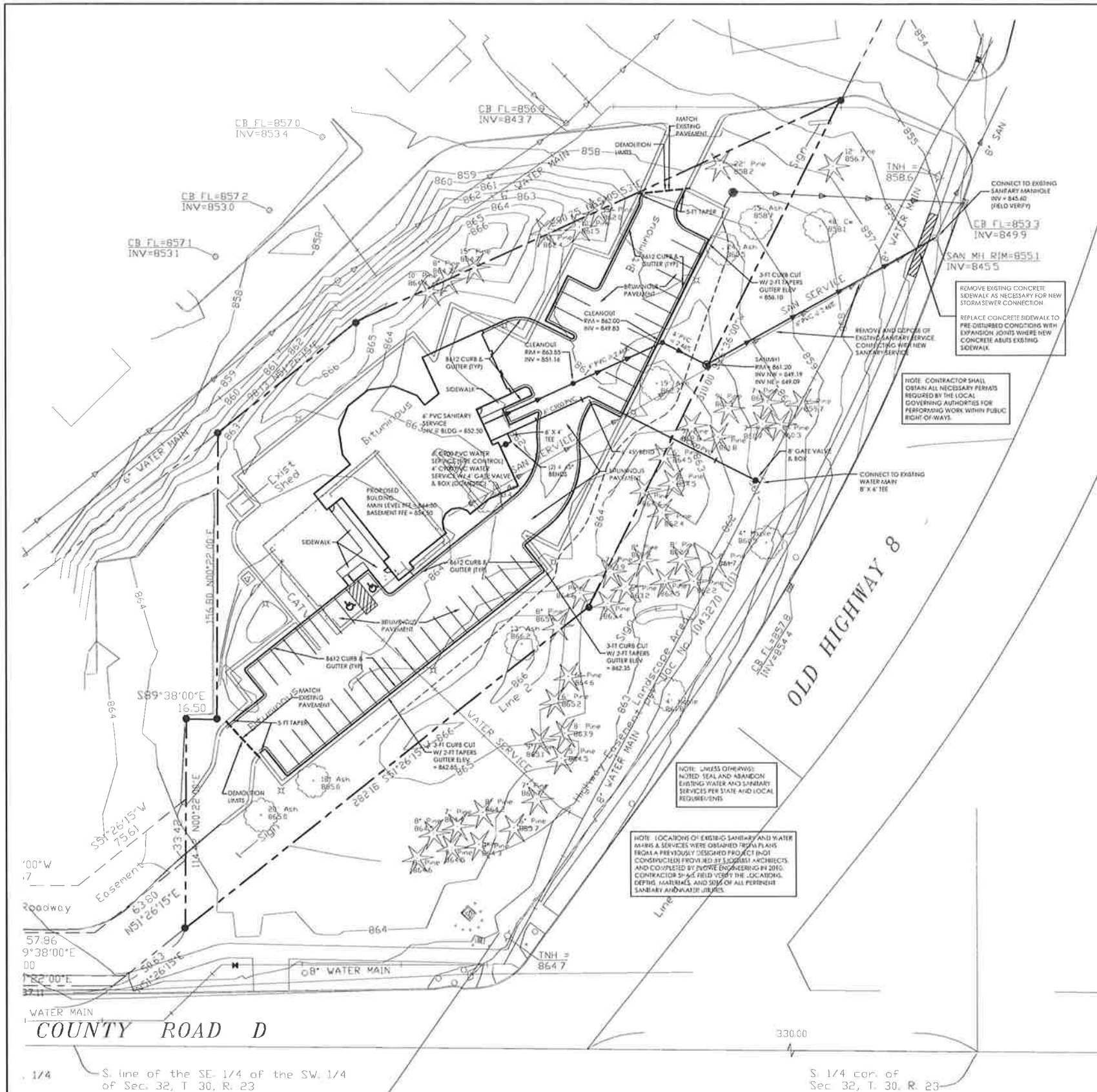
VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

SCALE: 1" = 30'

STORM WATER POLLUTION
PREVENTION PLAN
- PLAN VIEW

C-101.3



UTILITY AND SURFACING NOTES:

WATER AND SANITARY SEWER UTILITIES

1. WATER MAIN AND ANY WATER SERVICE LINES SHALL BE PLACED AT A MINIMUM DEPTH OF 7.5 FEET BELOW FINISHED GRADE.
2. IF CONFLICTS ARE DISCOVERED WHERE WATER MAIN CROSSES EXISTING SANITARY SEWER SERVICE LINES, OR STORM SEWER, THE WATER MAIN SHALL BE RAISED OR LOWERED APPROPRIATELY WHILE STILL MAINTAINING A MINIMUM DEPTH OF 7.5 FEET BELOW FINISHED GRADE.
3. INSTALL SANITARY SEWER SERVICE LINE CLEANOUTS AS REQUIRED BY THE MINNESOTA PLUMBING CODE.
4. OWNER/CONTRACTOR SHALL OBTAIN A PLUMBING PERMIT FROM THE MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PRIOR TO THE INSTALLATION OF ANY SANITARY SEWER OR WATER UTILITIES.
5. SEE SHEET C100.1 FOR STORM SEWER GRADING, AND SHEET C100.2 FOR MISCELLANEOUS DETAILS RELATING TO THE PLACEMENT OF THE UTILITIES.
6. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION.

SURFACING

1. SUBGRADES SHALL BE SCARIFIED AND/OR COMPACTED AS NECESSARY TO ATTAIN THE REQUIRED COMPACTION DESCRIBED IN THE GENERAL NOTES (SHEET C100.1). TEST ROLLING OF THE SUBGRADE SHALL BE OBSERVED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN. LOCATIONS EXHIBITING EXCESSIVE RUTTING (PER AASHTO SPEC. 211.1) SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER PRIOR TO THE PLACEMENT OF AGGREGATE BASE. COMPACTION TESTING IN UTILITY TRENCHES SHALL BE PERFORMED BY AN INDEPENDENT TESTING FIRM.
2. GRAVEL BASE COURSES SHALL BE ROLLED AND COMPACTED. TEST ROLLING OF THE GRAVEL BASE SHALL BE OBSERVED BY A SOILS ENGINEER TO VERIFY STABILITY.
3. SEE SHEET C100.1 FOR SPECIFICATIONS REGARDING THE CONSTRUCTION OF PAVEMENTS, AND CURB AND GUTTER.



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[Signature]

BRIAN J. SCHULTZ, PE
12/12/2012 43129
DATE LICENSE NO.
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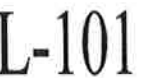
VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

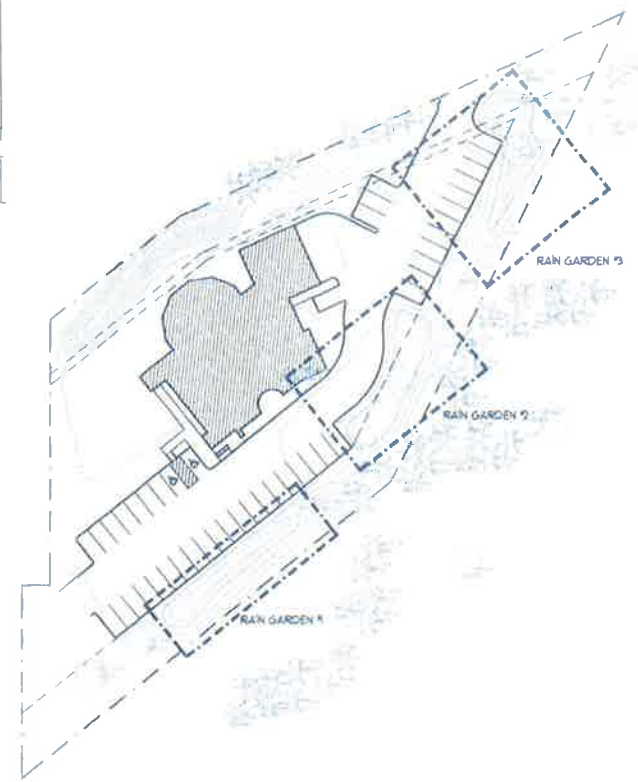
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UTILITY & PAVING PLAN

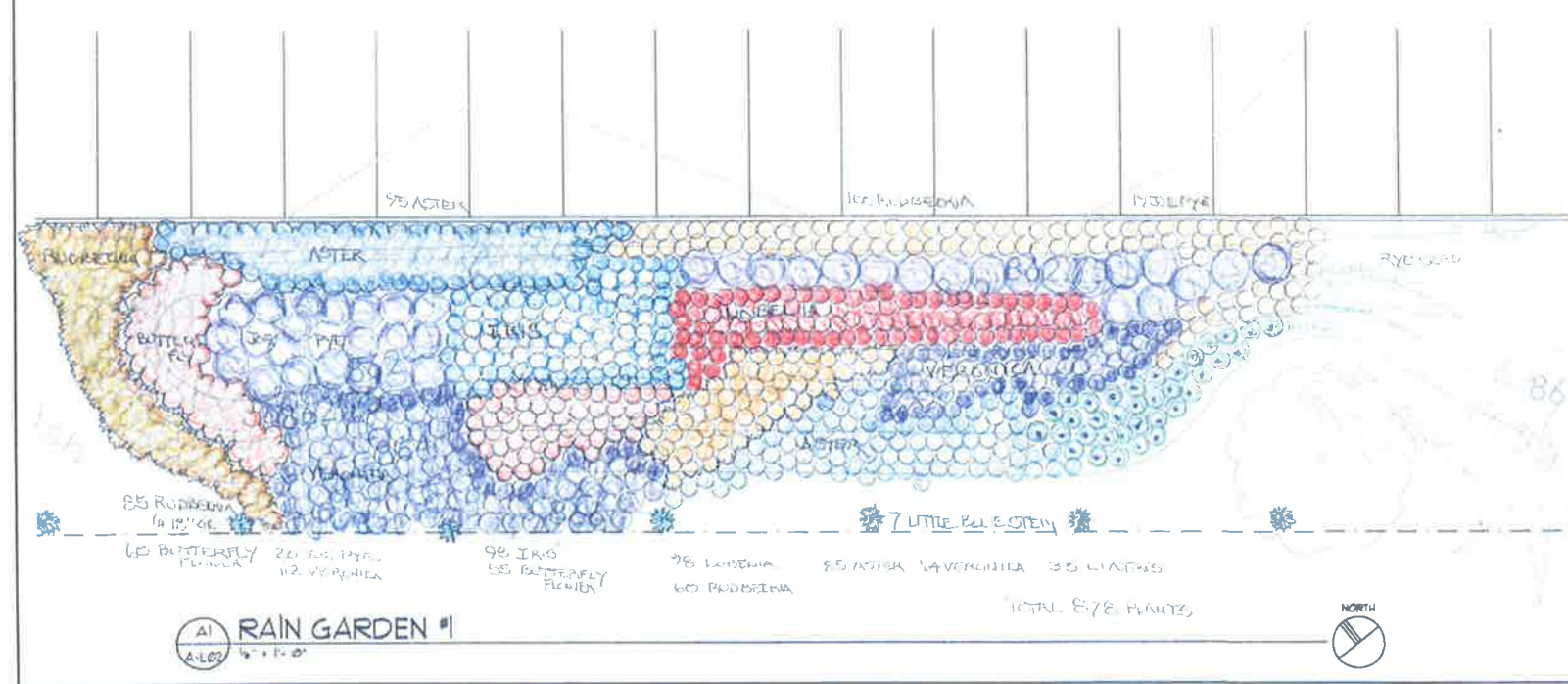
C-102



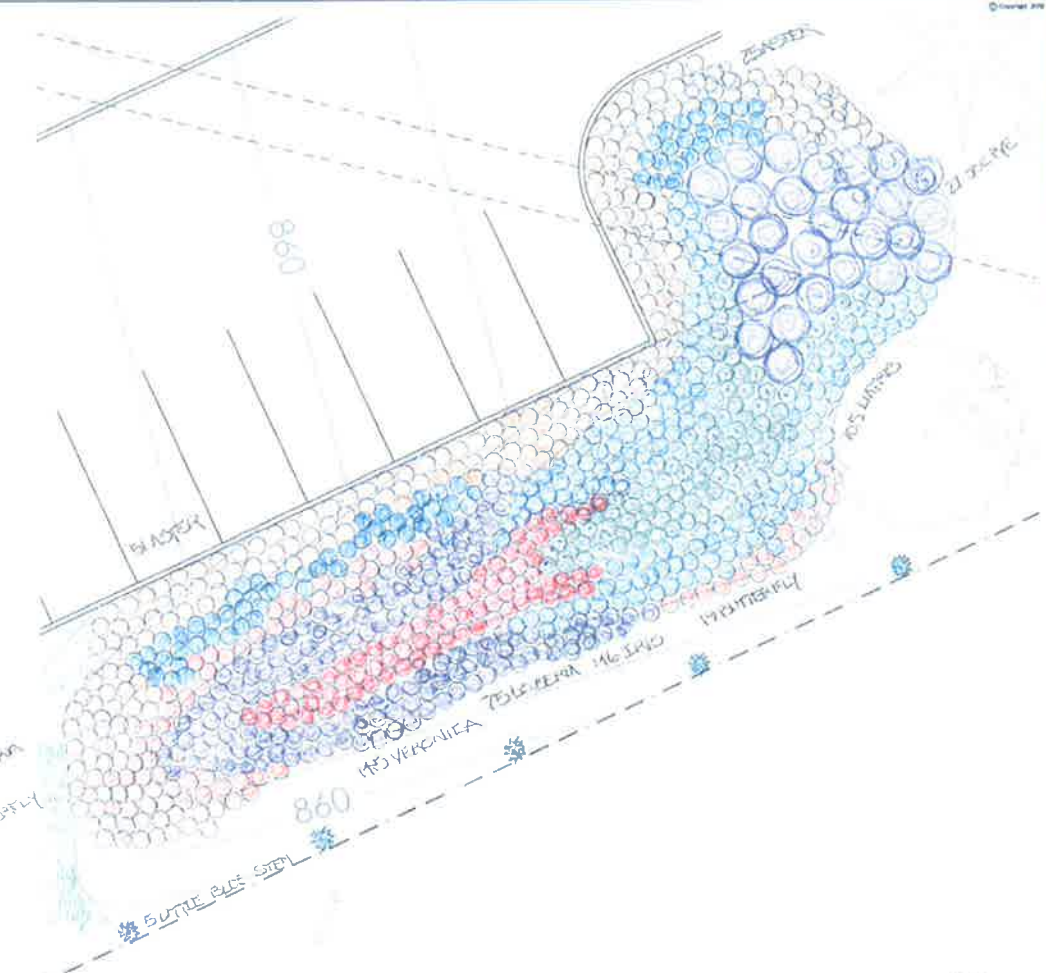
PLANT SCHEDULE						
NO.	COMMON NAME	BOTANICAL NAME	REGION	HEIGHT	SPREAD	USE
252	BUTTERFLY FLOWER	ASCLEPIAS TUBEROSA	SE	3'-4'	18"	WET
337	ASTER	ASTER NOVIFOLIUS	SE	3'-4'	18"	WET
96	RED PILE WOOD	ERUPTORHYNCHIS	SE	3'-4'	18"	WET
331	WILD ROSE	R. VIRGINICA	SE	3'-4'	18"	WET
213	P. BAZILLONIA	LYTHRUM BAZILLONIA	SE	3'-4'	18"	WET
245	VERONICA	VERONICA LUTHEA	SE	3'-4'	18"	WET
280	BLACK EYED SUSAN	THALICTRUM FLAVUM	SE	3'-4'	18"	WET
336	IRIS	IRIS PSEUDOPALUM	SE	3'-4'	18"	WET
2470 TOTAL PLANTS @ 8" CONTAINERS						
15	LITTLE BLUE STEM	SPENTANETHEMUM LANCEOLATUM	SE	3'-4'	18"	WET
15 @ 8" CONTAINERS						



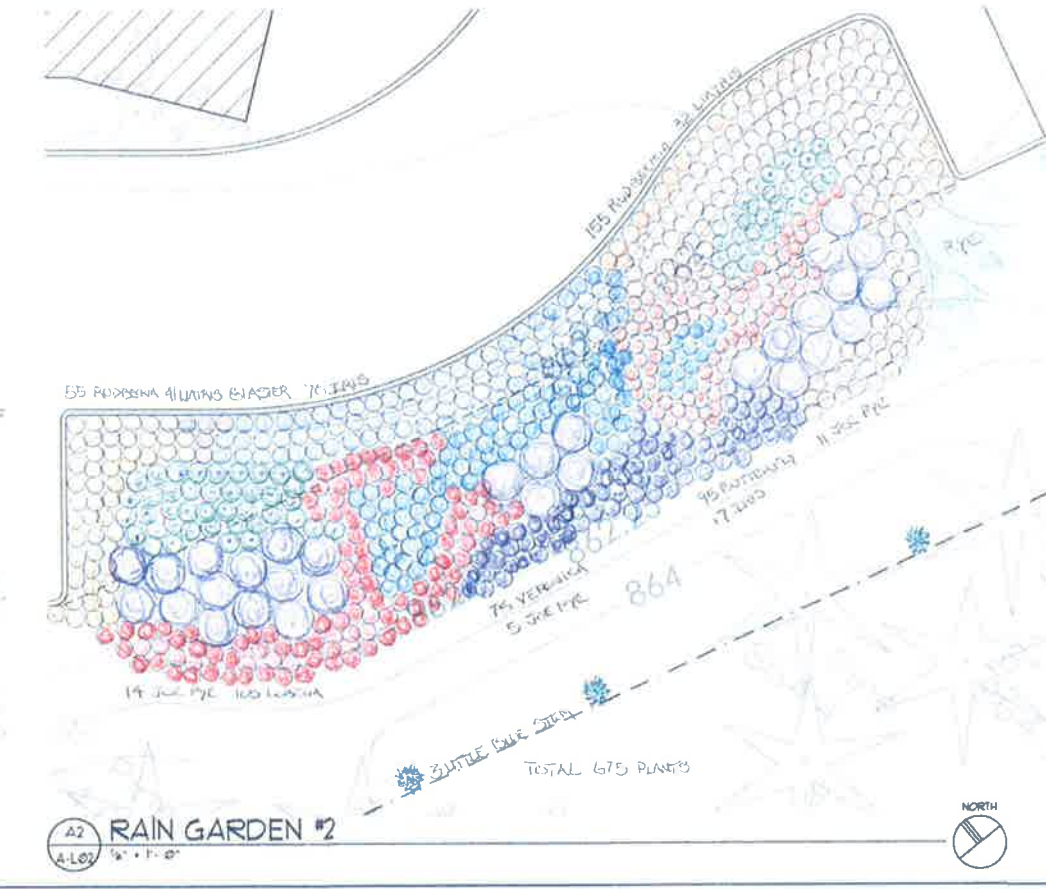
B1 LANDSCAPE PLAN KEY
1/8" = 1'-0"



A1 RAIN GARDEN #1
1/8" = 1'-0"



B2 RAIN GARDEN #3
1/8" = 1'-0"



A2 RAIN GARDEN #2
1/8" = 1'-0"

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DEREK YOUNG
LANDSCAPE ARCHITECTURE
229 NE 15TH STREET, SUITE 110
MINNEAPOLIS, MINNESOTA 55401
(612) 379-9733

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the state of

MINNESOTA

Derek Young
Signature
DEREK YOUNG / 12306
Landscape Architect / Registration
12.15.2012
Date

Drawn: _____ Checked: _____
Revisions: _____

1220
Project Number

**VILLAGE
ORTHODONTICS**

850 COUNTY ROAD B WEST
NEW BRIGHTON,
MINNESOTA

1/8" = 1'-0"

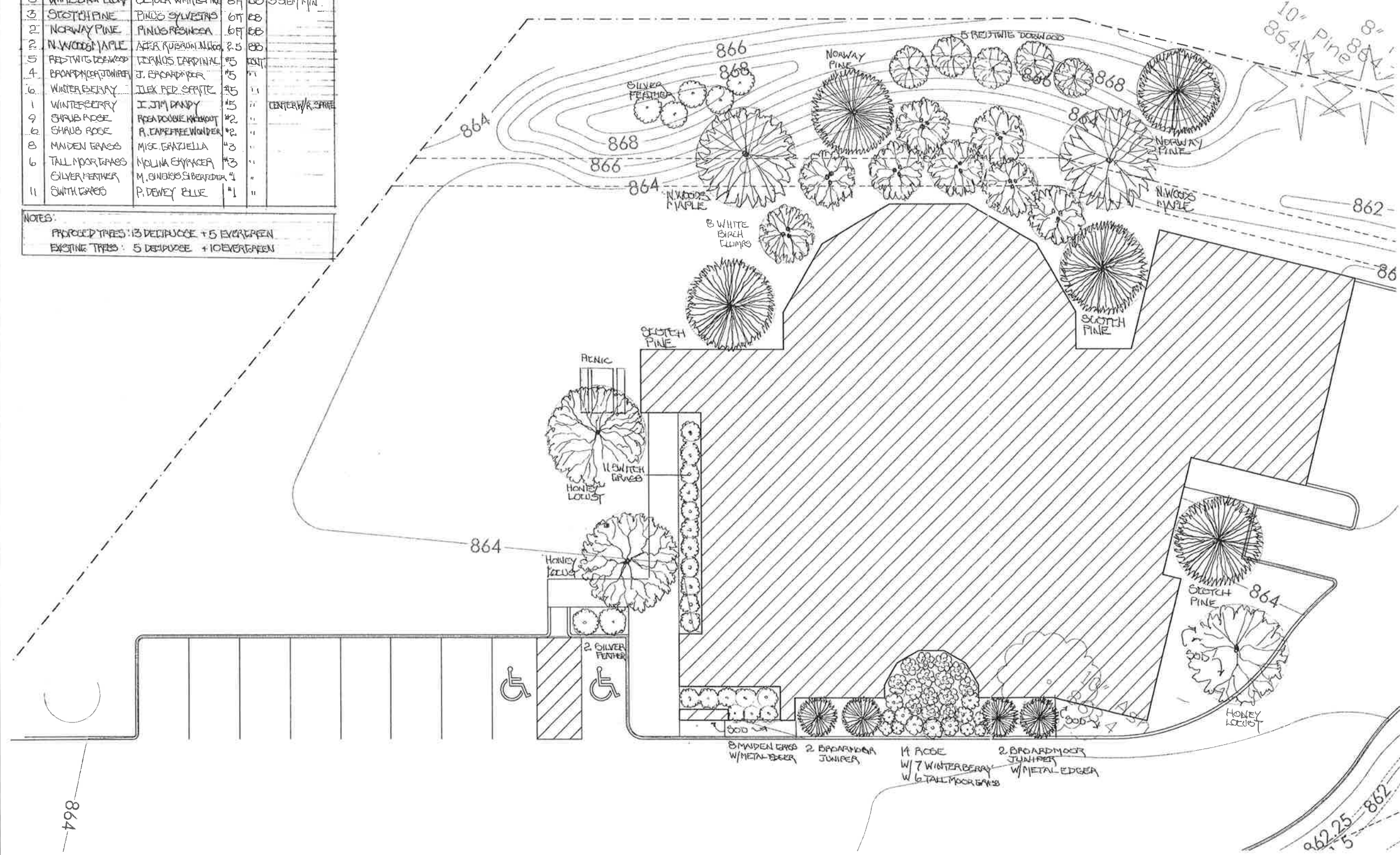
LANDSCAPE PLAN #
RAIN GARDENS

L-102

PLANT SCHEDULE

QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
3	HONEY LOCUST	LEDISIA SYLVE	25'	BB
8	WHITE BIRCH CLUMP	BETULA WHITEP	8' H	BB 3 STEP 1 MIN.
3	SCOTCH PINE	PINUS SYLVESTR	6' H	BB
2	NORWAY PINE	PINUS RESINOSA	6' H	BB
2	N. WOODS MAPLE	ACER RUBRON	2.5	BB
5	RED TWIG DOGWOOD	DOGWOOD CARPINAL	#5	BB
4	BROADLEAFED JUNIPER	J. SPREADER	#5	BB
6	WINTER BERRY	ILEX PER. OFFICE	#5	BB
1	WINTER BERRY	I. JIM DANDY	#5	BB CENTER W/ R. SHINE
9	SHRUB ROSE	ROSA DOUGL. WILSON	#2	BB
6	SHRUB ROSE	R. LAUREL WILSON	#2	BB
8	MAIDEN GRASS	MISC. GRAZIELLA	#3	BB
6	TALL MOOR GRASS	NOLINA CYPRIPED	#3	BB
11	SILVER FEATHER	M. GINSENG SILVERFEATH	#1	BB
11	SMITH GRASS	P. DEWEY BLUE	#1	BB

NOTES:
 PROPOSED TREES: 13 DECIDUOUS + 5 EVERGREEN
 EXISTING TREES: 5 DECIDUOUS + 10 EVERGREEN



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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the state of

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 12-18-2018
 Date

Drawn _____ Checked _____

Revisions _____

1220
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VILLAGE ORTHODONTICS

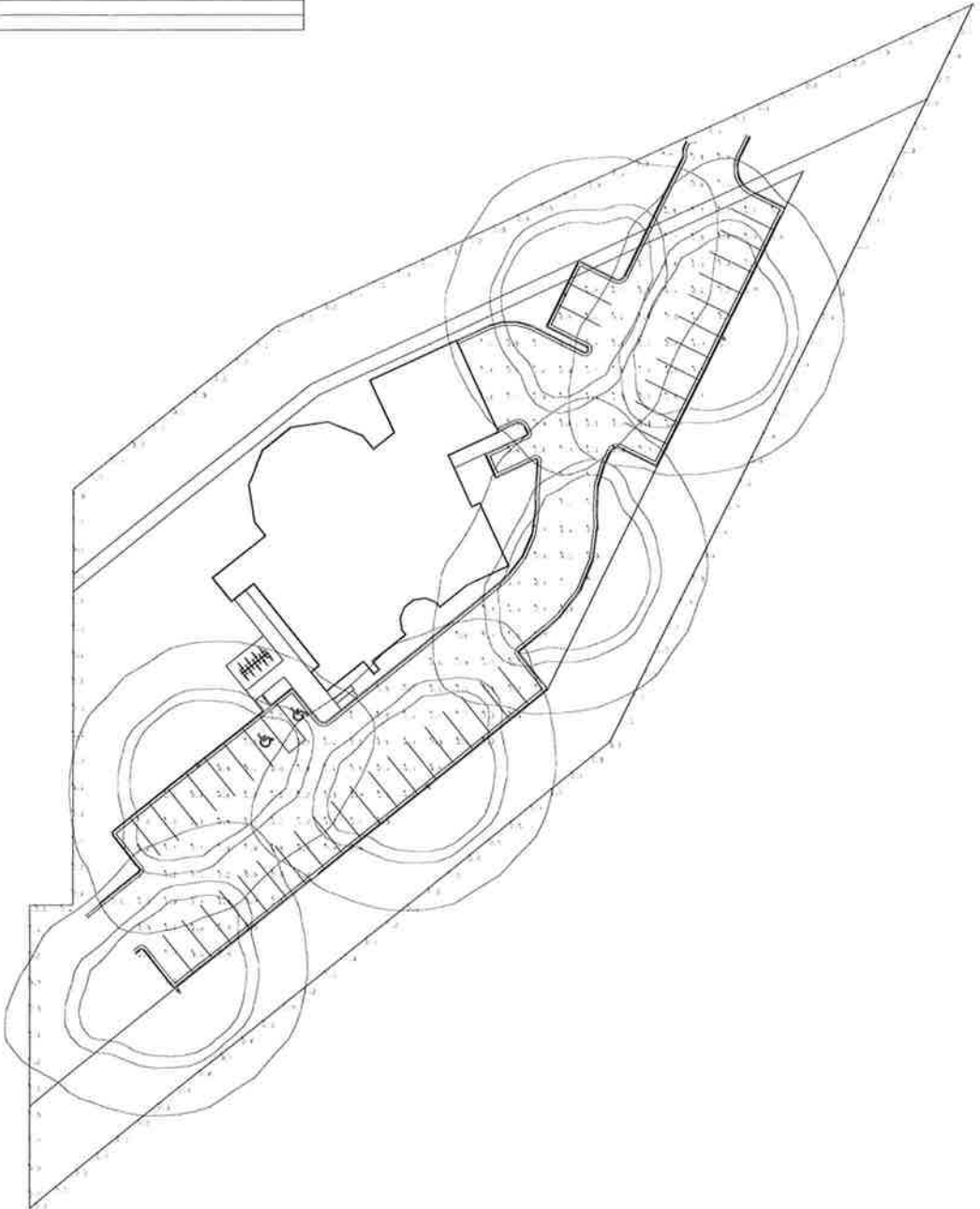
850 COUNTY ROAD B WEST
 NEW BRIGHTON, MINNESOTA

1/8" = 1'-0"
 LANDSCAPE PLAN @ BUILDING

L-103

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
■	6	AL10-250P-TYPE4	SINGLE	21000	0.720	AL10-250P-CT(Lumen Conv.from 400w)

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking & Drive	Illuminance	Fc	1.74	3.6	0.3	5.83	18.67
Property Line	Illuminance	Fc	0.16	0.6	0.0	N.A.	N.A.



A2 SITE LIGHTING PLAN
AS161 1" = 30'-0"



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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the state of

MINNESOTA

Signature

Architect / Registration

2012.12.20

Date

Drawn

Checked

Revisions

1220

Project Number

VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

1" = 30'-0"

SITE LIGHTING PLAN

AS161



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Minneapolis, Minnesota 55414
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2012.12.28
Date

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Revisions _____

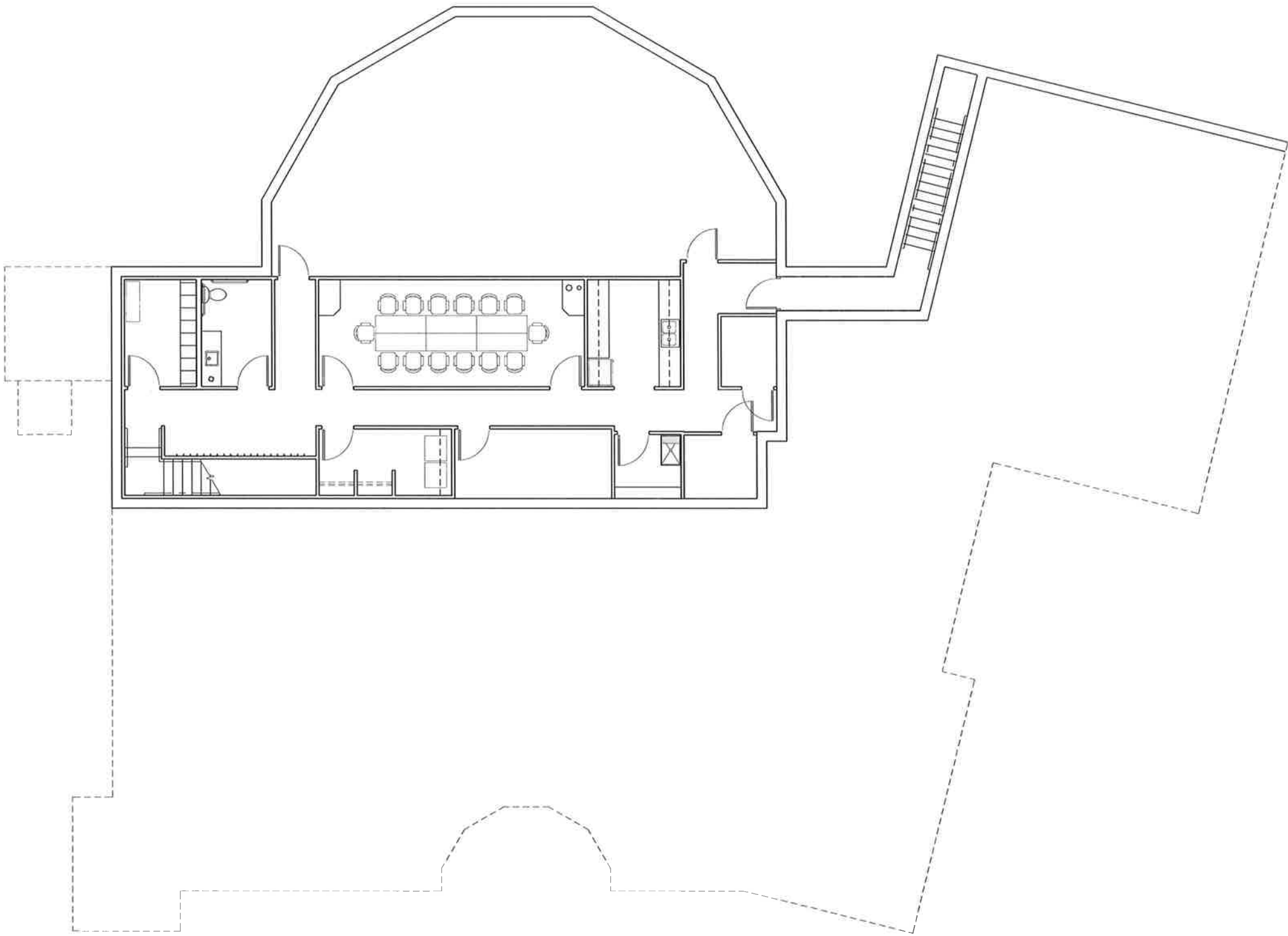
1220
Project Number

VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

3/16" = 1'-0"

FLOOR PLAN - BASEMENT



AI FLOOR PLAN - BASEMENT
A-100 3/16" = 1'-0"



A-100



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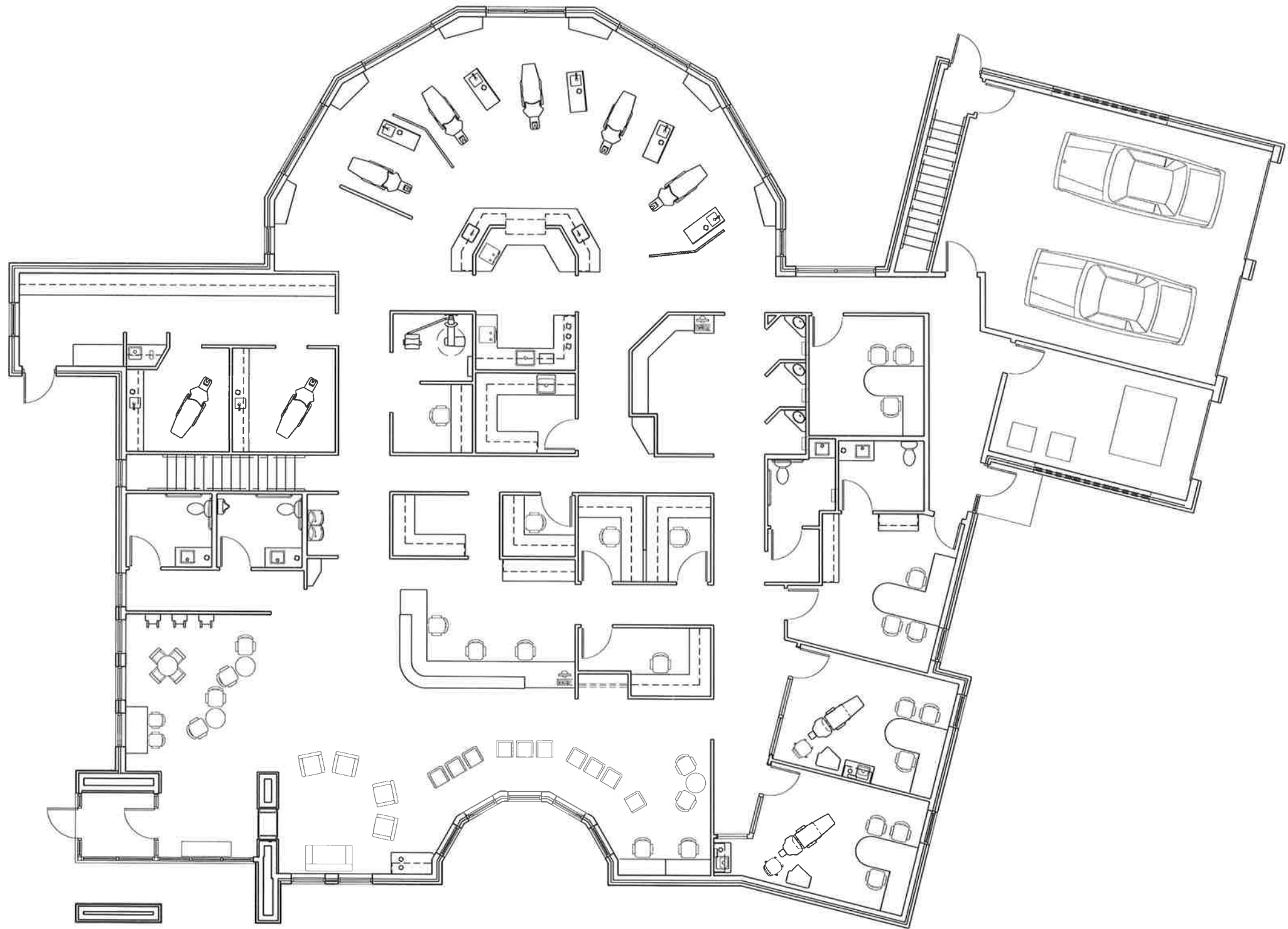
1220
 Project Number

VILLAGE
 ORTHODONTICS

850 COUNTY ROAD D WEST
 NEW BRIGHTON,
 MINNESOTA

3/16" = 1'-0"

FLOOR PLAN - MAIN LEVEL

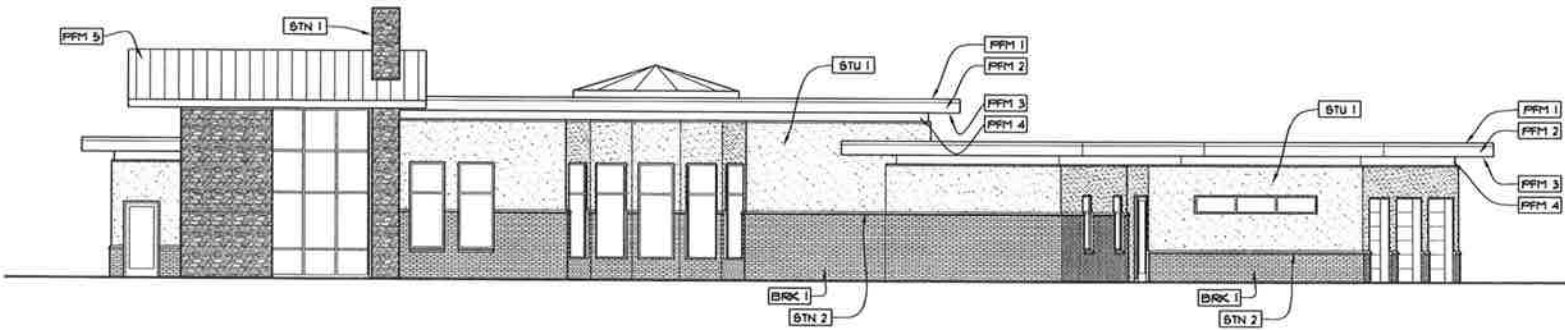


FLOOR PLAN - MAIN LEVEL
 A-101 3/16" = 1'-0"



A-101

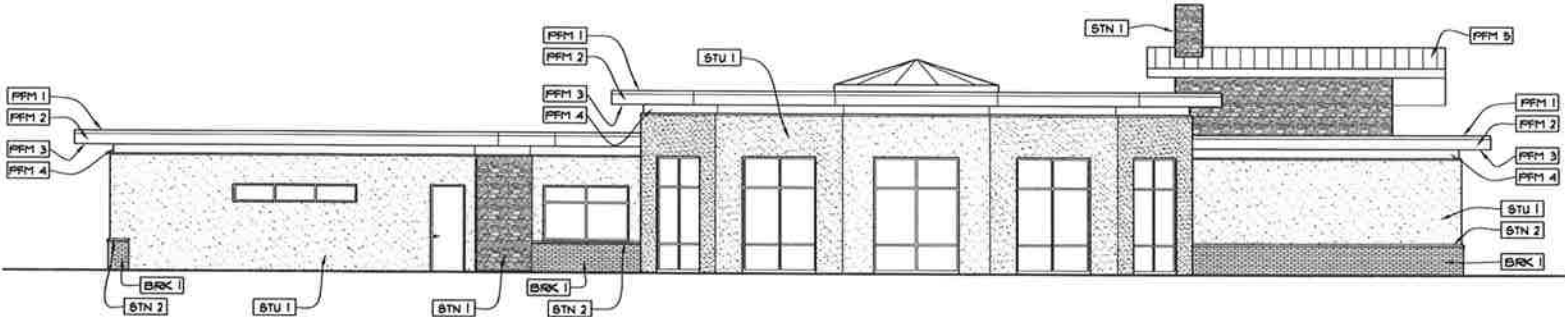
EXTERIOR FINISH SCHEDULE				
FINISH	ITEM	MANUFACTURER	COLOR	REMARKS
BRK 1	BRICK MODULAR	BELDEN	HARBOUR MIST CLEAR	
CMU 1	4" CONCRETE MASONRY UNIT COLORED SILL BLOCK	AMCON	311 GOLD LEAF	
PFM 1	PREFINISHED METAL COPING	UNA - CLAD	BLACK	
PFM 2	PREFINISHED METAL FASCIA	UNA - CLAD	BLACK	
PFM 3	PREFINISHED METAL SOFFIT	UNA - CLAD	BLACK	
PFM 4	PREFINISHED METAL REVEAL	UNA - CLAD	BLACK	
PFM 5	PREFINISHED METAL ROOFING	UNA - CLAD	BLACK	
STN 1	STONE WESTERN LEDGE STACK	BOULDER CREEK	NEPA 55060-5	
STN 2	LIMESTONE SILL CHISEL FACE	PETRO BRICK		
STU 1	STUCCO	DRYVIT	611A WINTER EVE	



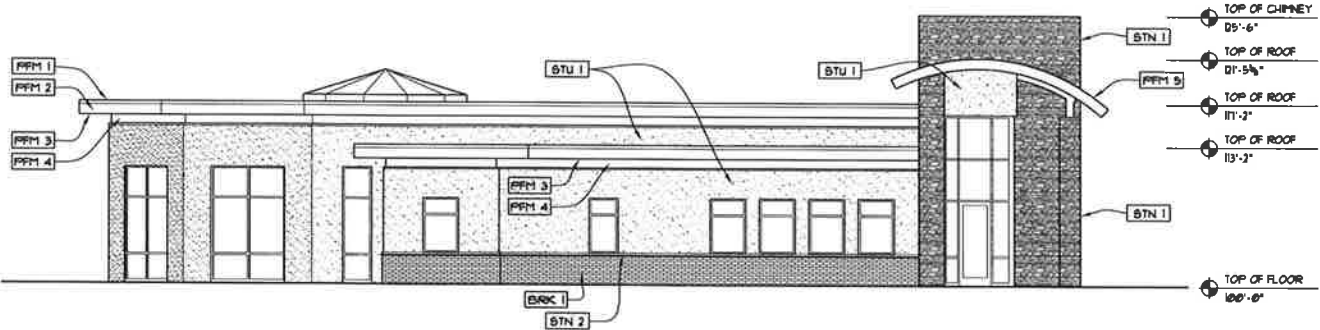
D2 EXTERIOR ELEVATION - SOUTH
1/8" = 1'-0"



C2 EXTERIOR ELEVATION - EAST
1/8" = 1'-0"



B2 EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"



A2 EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



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2012.02.28
Date

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Revisions _____

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Project Number

VILLAGE
ORTHODONTICS

850 COUNTY ROAD D WEST
NEW BRIGHTON,
MINNESOTA

1/8" = 1'-0"
EXTERIOR ELEVATIONS
EXTERIOR FINISHES SCHEDULE

A-201