

# WOODLANDS 4TH ADDITION

CITY OF RAMSEY  
 COUNTY OF ANOKA  
 SEC. 16, T. 32, R. 25

KNOW ALL PERSONS BY THESE PRESENTS: That U.S. Home Corporation, a Delaware corporation, owner of the following described property:

Outlot B, WOODLANDS, according to the recorded plat thereof, Anoka County, Minnesota.

And

Outlot B, WOODLANDS 2ND ADDITION, according to the recorded plat thereof, Anoka County, Minnesota.

And

Outlot A, WOODLANDS 3RD ADDITION, according to the recorded plat thereof, Anoka County, Minnesota.

And

That part of the Southeast Quarter of the Southeast Quarter of Section 16, Township 32, Range 25, Anoka County, Minnesota, described as follows:

Commencing at the northwest corner of said Southeast Quarter of the Southeast Quarter; thence on an assumed bearing of South 89 degrees 24 minutes 10 seconds East, along the north line of said Southeast Quarter of the Southeast Quarter, a distance of 352.58 feet to the point of beginning of the land to be described; thence continuing South 89 degrees 24 minutes 10 seconds East, along said north line, a distance of 968.77 feet to the northeast corner of said Southeast Quarter of the Southeast Quarter; thence South 00 degrees 52 minutes 52 seconds West, along the east line of said Southeast Quarter of the Southeast Quarter, a distance of 805.01 feet; thence North 89 degrees 24 minutes 10 seconds West a distance of 810.01 feet; thence North 00 degrees 52 minutes 52 seconds East a distance of 555.01 feet; thence North 31 degrees 37 minutes 00 seconds West a distance of 295.48 feet to the point of beginning.

Has caused the same to be surveyed and platted as WOODLANDS 4TH ADDITION and does hereby dedicate to the public for public use the public ways and the drainage and utility easements as created on this plat.

In witness whereof said U.S. Home Corporation, a Delaware corporation, has caused these presents to be signed by its proper officer this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

U.S. Home Corporation

By: \_\_\_\_\_  
 Jonathan A. Aune, Vice President

STATE OF \_\_\_\_\_  
 COUNTY OF \_\_\_\_\_

This instrument was acknowledged before me on \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by Jonathan A. Aune, Vice President of U.S. Home Corporation, a Delaware corporation, on behalf of the corporation.

\_\_\_\_\_  
 \_\_\_\_\_ County, \_\_\_\_\_  
 My commission expires \_\_\_\_\_

I, Marcus F. Hampton do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been, or will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
 Marcus F. Hampton, Licensed Land Surveyor, Minnesota License No. 47481

STATE OF MINNESOTA  
 COUNTY OF \_\_\_\_\_

This instrument was acknowledged before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by Marcus F. Hampton.

\_\_\_\_\_  
 \_\_\_\_\_ County, \_\_\_\_\_  
 My commission expires January 31, 20\_\_

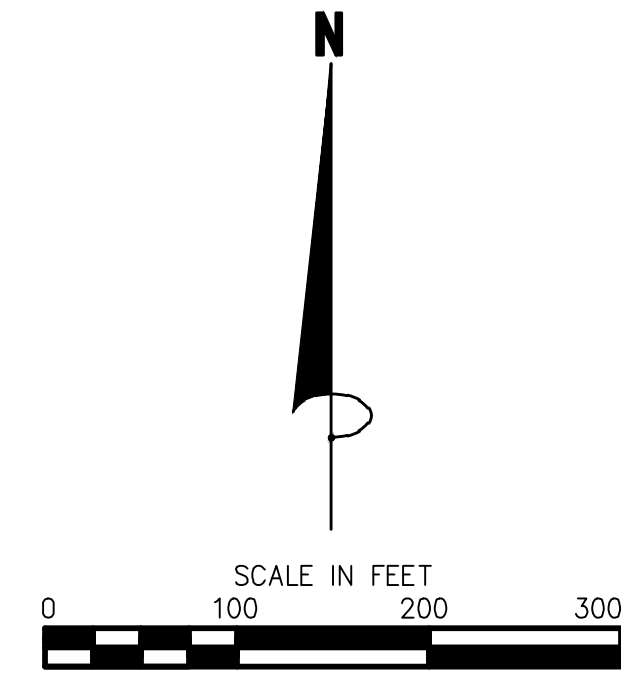
CITY COUNCIL, CITY OF RAMSEY, MINNESOTA

This plat of WOODLANDS 3RD ADDITION was approved and accepted by the City Council of the City of Ramsey, Minnesota at a regular meeting thereof held this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2.

City Council, City of Ramsey, Minnesota

By: \_\_\_\_\_  
 Mayor

Clerk



- BEARINGS ARE BASED ON THE NORTH LINE OF SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SEC. 16, T. 32, R. 25, WHICH IS ASSUMED TO HAVE A BEARING OF S 89°24'10" E.
- DENOTES 1/2 INCH IRON MONUMENT FOUND
- DENOTES SET 1/2 INCH IRON MONUMENT WITH CAP MARKED R.L.S. NO. 47481
- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY, JULY 2014

ANOKA COUNTY SURVEYOR

I hereby certify that in accordance with Minnesota Statutes, Section 505.021, Subd. 11, this plat has been reviewed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
 Larry D. Hoiium, Anoka County Surveyor

ANOKA COUNTY AUDITOR/TREASURER

Pursuant to Minnesota Statutes, Section 505.021, Subd. 9, taxes payable in the year 20\_\_ on the land hereinbefore described have been paid. Also, pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfer entered this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
 Property Tax Administrator

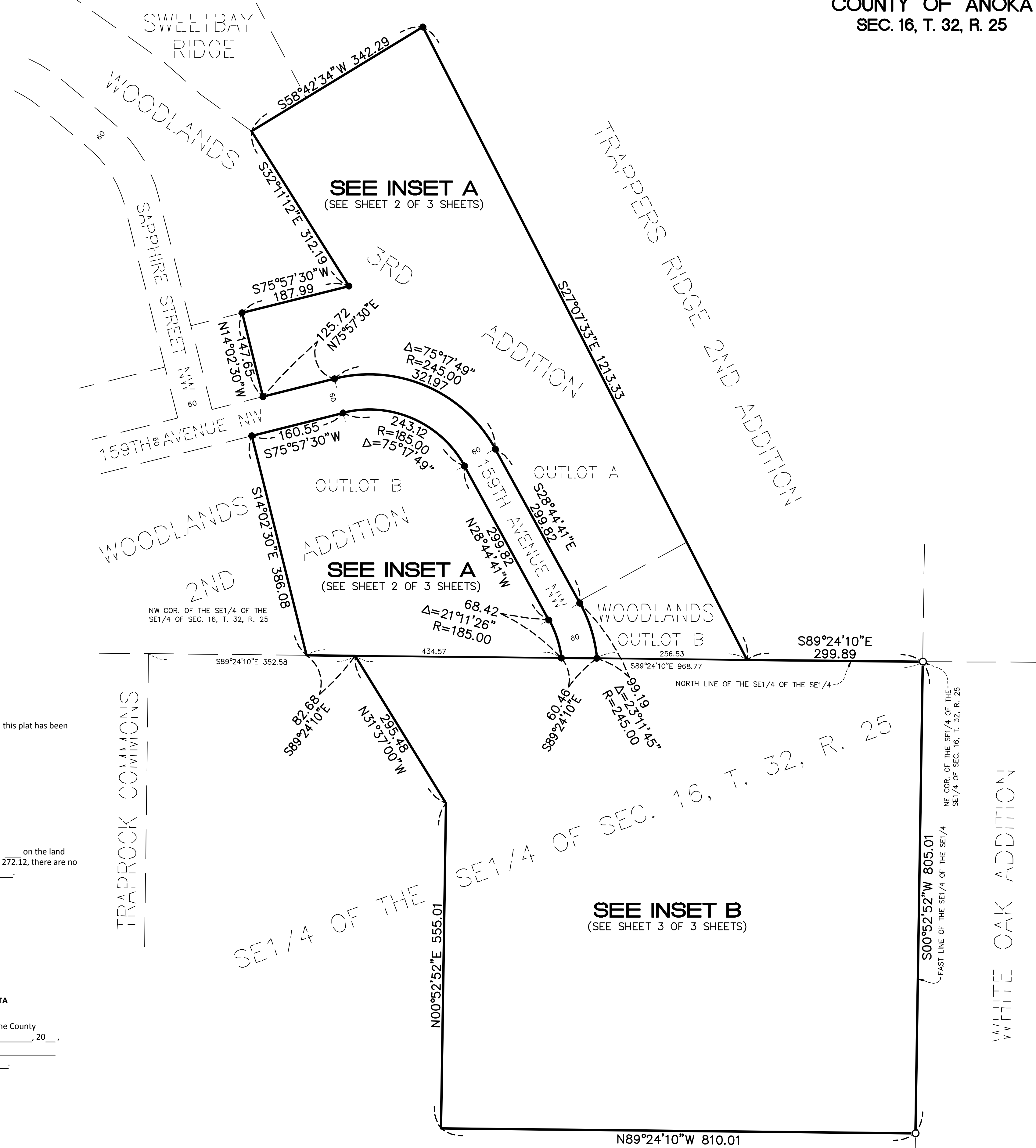
By: \_\_\_\_\_, Deputy

COUNTY RECORDER/REGISTRAR OF TITLES, COUNTY OF ANOKA, STATE OF MINNESOTA

I hereby certify that this plat of WOODLANDS 4TH ADDITION was filed in the office of the County Recorder/Registrar of Titles for public record on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, at \_\_\_\_\_ o'clock \_\_\_\_\_ M. and was duly recorded in Book \_\_\_\_\_ Page \_\_\_\_\_, as Document Number \_\_\_\_\_.

\_\_\_\_\_  
 County Recorder/Registrar of Titles

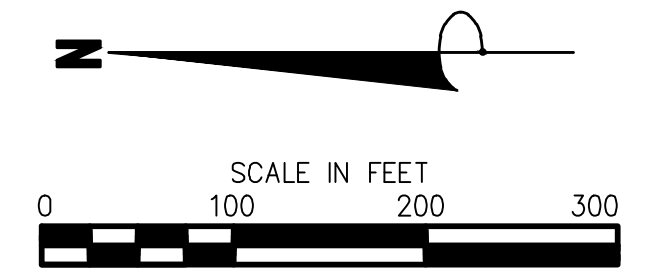
By: \_\_\_\_\_, Deputy



# WOODLANDS 4TH ADDITION

CITY OF RAMSEY  
 COUNTY OF ANOKA  
 SEC. 16, T. 32, R. 25

## INSET A

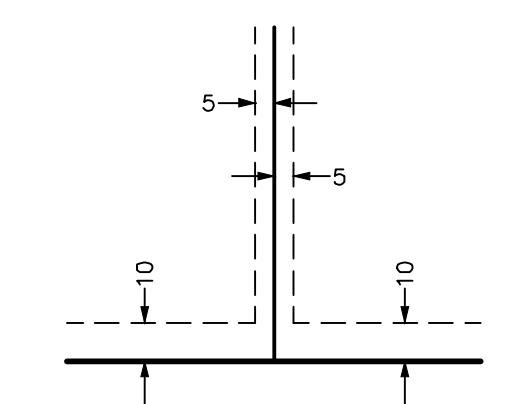


BEARINGS ARE BASED ON THE NORTH LINE OF SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SEC. 16, T. 32, R. 25, WHICH IS ASSUMED TO HAVE A BEARING OF S 89°24'10\"/>

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- DENOTES SET 1/2 INCH IRON MONUMENT WITH CAP MARKED R.L.S. NO. 47481

--- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY, JULY 2014

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:

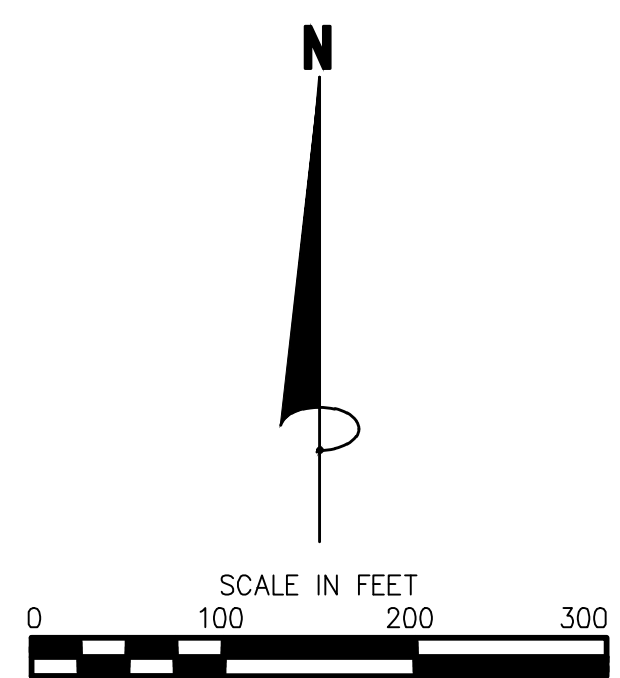
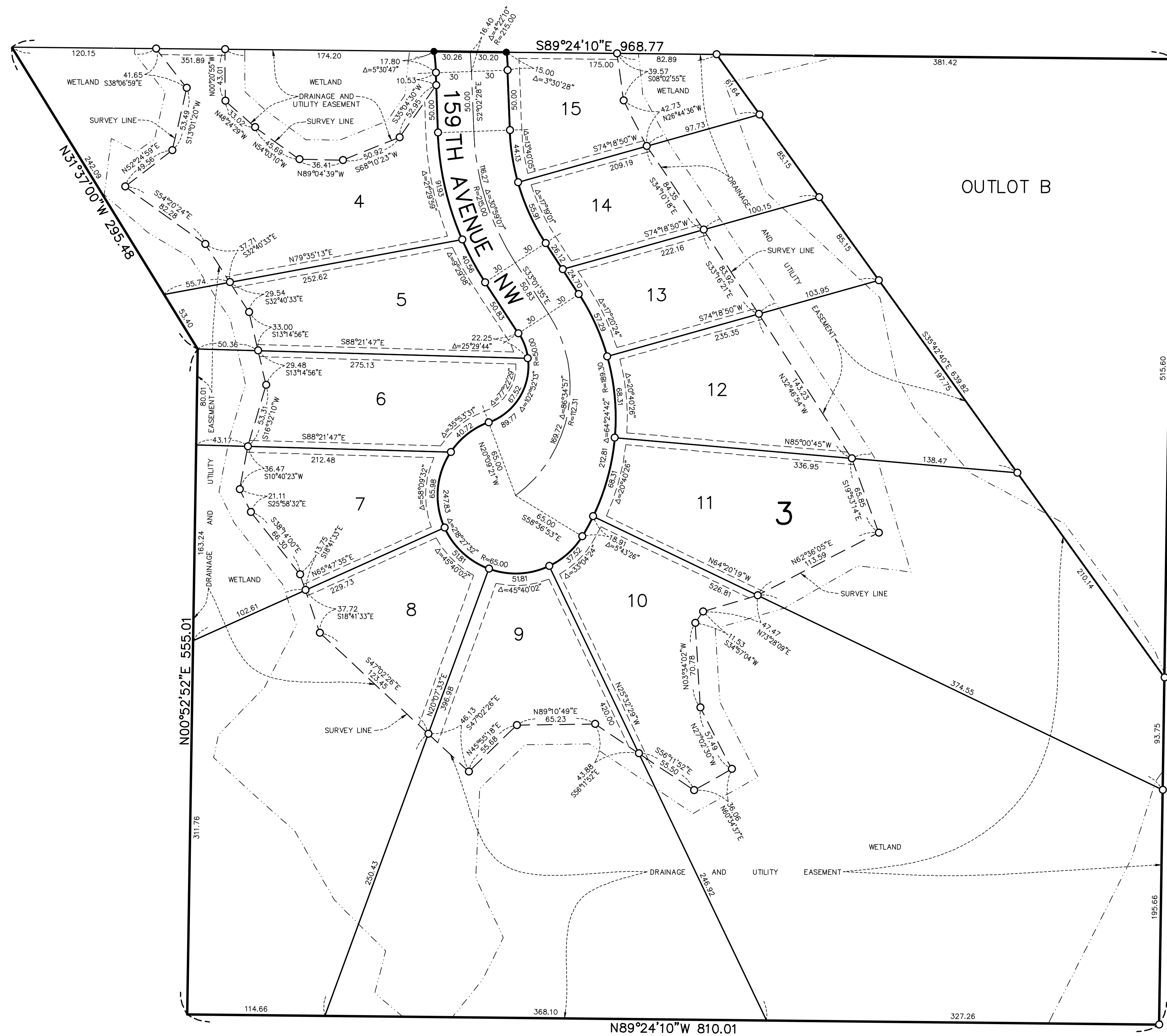


DRAINAGE AND UTILITY EASEMENTS BEING 5 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, ADJOINING LOT LINES, AND BEING 10 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, ADJOINING RIGHT OF WAY LINES, AS SHOWN ON THE PLAT.

# WOODLANDS 4TH ADDITION

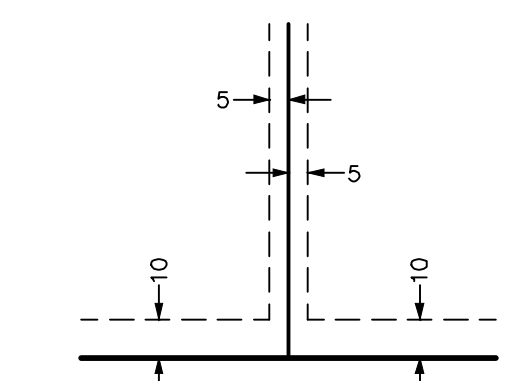
CITY OF RAMSEY  
 COUNTY OF ANOKA  
 SEC. 16, T. 32, R. 25

## INSET B



- BEARINGS ARE BASED ON THE NORTH LINE OF SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SEC. 16, T. 32, R. 25, WHICH IS ASSUMED TO HAVE A BEARING OF S 89°24'10" E.
- DENOTES 1/2 INCH IRON MONUMENT FOUND
- DENOTES SET 1/2 INCH IRON MONUMENT WITH CAP MARKED R.L.S. NO. 47481
- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY, JULY 2014

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



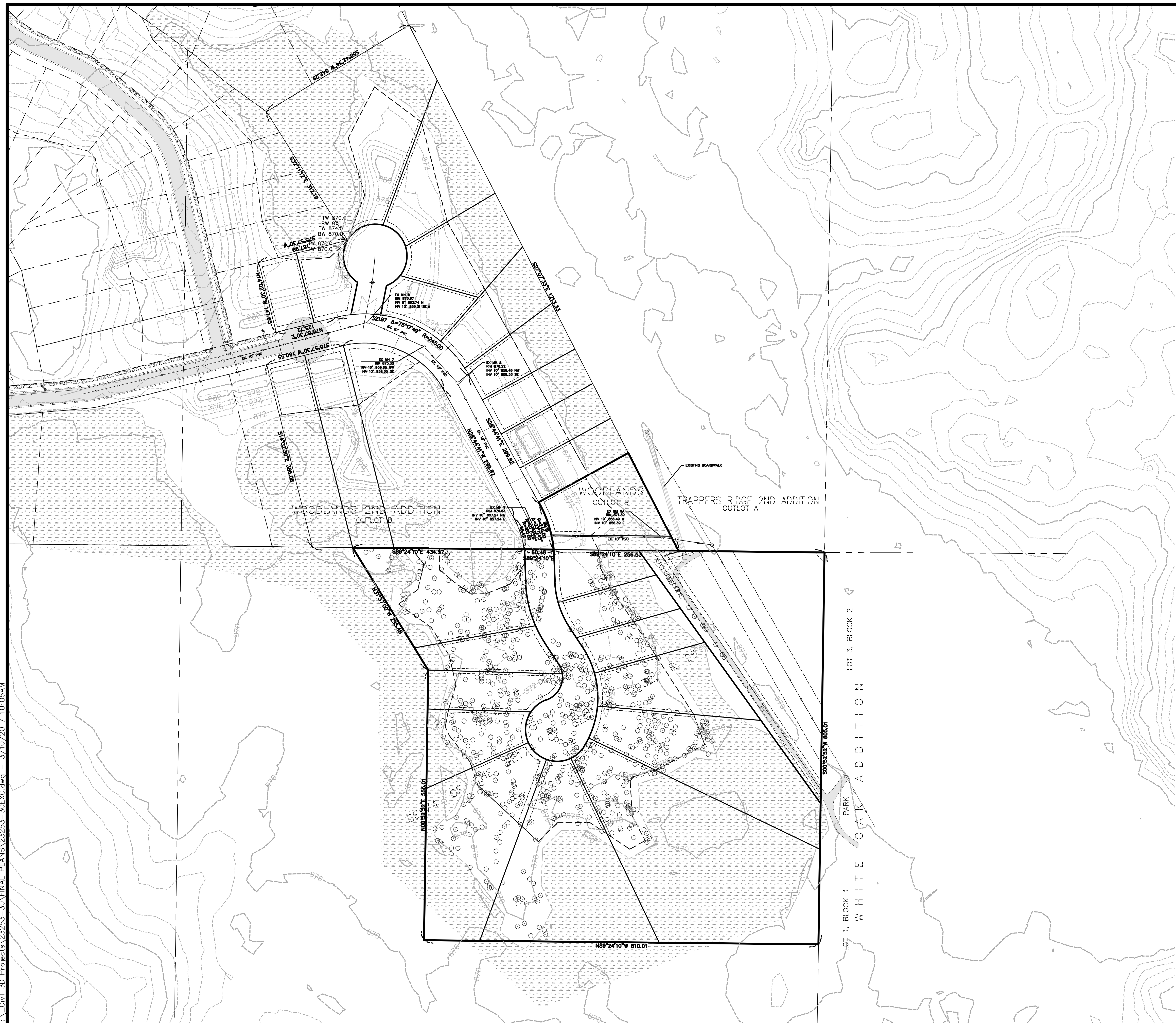
DRAINAGE AND UTILITY EASEMENTS BEING 5 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, ADJOINING LOT LINES, AND BEING 10 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, ADJOINING RIGHT OF WAY LINES, AS SHOWN ON THE PLAT.





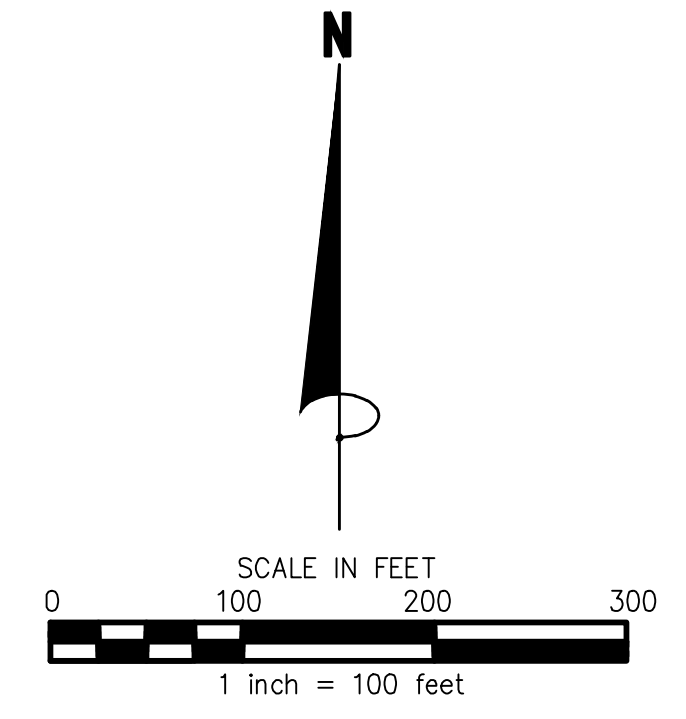


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**LEGEND**

- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING ASPHALT SURFACE
- EXISTING CONCRETE SURFACE
- EXISTING WETLAND AREA
- EXISTING WETLAND
- EXISTING TREES
- EXISTING CURB
- EXISTING CONTOUR



**BENCHMARK**

#1 TNH LOT 1, BLOCK 2, WOODLANDS 1ST ADD.  
TOP NUT HYDRANT ELEV=897.75

#2 TNH LOTS 6&7, BLOCK 4, WOODLANDS 1ST ADD.  
TOP NUT HYDRANT ELEV=885.00

**James R. Hill, Inc.**  
PLANNERS / ENGINEERS / SURVEYORS  
2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337  
PHONE: (952)890-6044 FAX: (952)890-6244

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 Professional Engineer under the laws of the State of Minnesota.  
JAMES R. HILL, P.E.  
Date: 02/16/2016 Reg. No. 18495

**THE WOODLANDS - 4th ADDITION**  
RAMSEY, MINNESOTA  
**EXISTING CONDITIONS**  
FOR  
**LENNAR**  
16305 36TH AVE N, #600, PLYMOUTH, MN 55446

DRAWN BY EPF	CAD FILE 23253-30EXC
DATE 03/03/2017	PROJECT NO. 23253-30
REVISIONS	1.30

# NPDES REQUIREMENTS

## II.B. APPLICATION AND DURATION OF COVERAGE

1. Application Required.  
 a. The owner and operator shall submit a complete and accurate on-line application form with the appropriate fee to the MPCA for each project that disturbs one (1) or more acres of land or for a common plan of development, or site that will ultimately disturb one (1) or more acres. If the applicant is not able to apply on-line, contact the MPCA for technical assistance or a waiver.  
 b. For certain projects or common plans of development, or sole disturbing 50 acres or more, the application must be submitted at least 30 days before the start of construction activity. This requirement pertains to projects that have a discharge point on the project that is within one mile (airpel radius measurement) of, and flows to, a special water listed in Appendix A, Part B, or waters listed as impaired under section 303(d) of the Federal Clean Water Act (see the MPCA's website) where the identified pollutant(s) or stressor(s) are phosphorus (nutrient eutrophication biological indicators), turbidity, dissolved oxygen, or biotic impairment (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment). Applicants of projects listed in this part must submit a complete and accurate application form and SWPPP including all calculations for the Permanent Stormwater Management System (see Parts III.A.-D.).

2. All persons meeting the definition of owner and operator are Permittees and must be listed on the application. The owner is responsible for compliance with all terms and conditions of this permit. The operator is responsible for compliance with Parts II.B., II.C., III.B.-F., IV, V, and applicable construction activity requirements found in Appendix A, Part C. of this permit and is jointly responsible with the owner for compliance with those portions of the permit.

3. Permit Coverage Effective Date: The commencement of any construction activity (e.g., land disturbing activities) covered under Part I.A. of this permit is prohibited until permit coverage under this permit is effective.  
 a. For projects listed in Part II.B.1.a. permit coverage will become effective seven (7) calendar days after the electronic submittal date or the postmarked date of a complete application form.  
 b. For projects listed in Part II.B.1.b. permit coverage will become effective 30 calendar days after the electronic submittal date, the postmarked date or MPCA date stamp (whichever is first) of the complete application. For incomplete applications (e.g., lack of fees or signature) or incomplete SWPPPs (e.g., missing calculations, Best Management Practice (BMP) specifications, estimated quantities of the BMPs, or timing of BMP installation narrative), the permit becomes effective 30 calendar days after all required information is submitted.

4. Coverage Notification: Permittee(s) will be notified of coverage in a manner as determined by the Commissioner (e.g., e-mail, online notification or letter).

5. Change of Coverage: For construction projects where the owner or operator changes, (e.g., an original developer sells portions of the property to various homebuilders or sells the entire site to a new owner) the current owner and the new owner or operator shall submit a complete permit modification on a form provided by the Commissioner. The form must be submitted prior to the new owner or operator commencing construction activity on site or in no case later than 30 days after taking ownership of the property. The owner shall provide a SWPPP to the new owner and operator that specifically addresses the remaining construction activity.

## II.C. TERMINATION OF COVERAGE

1. Termination of coverage when construction is complete: All Permittee(s) must submit a Notice of Termination (NOT) to the MPCA on a form provided by the Commissioner within 30 days after all activities required for Final Stabilization (see Part IV.G.) are complete. The Permittee(s)' coverage under this permit terminates at midnight on the submission date of the NOT.

2. Termination of coverage when transfer of ownership occurs: All Permittee(s) must submit a NOT on a form provided by the Commissioner within 30 days after selling or otherwise legally transferring the entire site, including permit responsibility for roads (e.g., street sweeping) and stormwater infrastructure final clean up, or transferring portions of a site to another party. The Permittee(s)' coverage under this permit terminates at midnight on the submission date of the NOT.

3. Permittee(s) may terminate permit coverage prior to completion of all construction activity if all of the following conditions are met. After the permit is terminated under this Part, if there is any subsequent development on the remaining portions of the site where construction activity was not complete, new permit coverage must be obtained if the subsequent development itself or as part of the remaining common plan of development or sale will result in land disturbing activities of one (1) or more acres in size.  
 a. Construction activity has ceased for at least 90 days.  
 b. At least 90 percent (by area) of all originally proposed construction activity has been completed and permanent cover established on those areas.  
 c. On areas where construction activity is not complete, permanent cover has been established.  
 d. The site is in compliance with Part IV.G.2. and Part IV.G.3. and where applicable, Part IV.G.4. or Part IV.G.5.

4. Permittee(s) may terminate coverage upon approval by the MPCA if information is submitted to the MPCA documenting that termination is appropriate because the project is cancelled.

## III.B. SWPPP AMENDMENTS

The Permittee(s) must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMPs, that are designed to correct problems identified or address situations whenever:

- There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to surface waters or underground waters.
- Inspections or investigations by site owner or operators, USEPA or MPCA officials indicate the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or underground waters or that the discharges are causing water quality standard exceedances (e.g., nuisance conditions as defined in Minn. R. 7050.0210, subp. 2).
- The SWPPP is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with the terms and conditions of this permit.
- At any time after permit coverage is effective, the MPCA may determine that the project's stormwater discharges may cause, have responsible potential to cause, or contribute to non-attainment of any applicable water quality standard, or that the SWPPP does not incorporate the applicable requirements in Part III.A.6., Impaired Waters and TMDLs. If a water quality standard change during the term of this permit, the MPCA will make a determination as to whether a modification of the SWPPP is necessary to address the new standard. If the MPCA makes such determination(s) or any of the determinations in Parts III.B.1.-3., the MPCA will notify the Permittee(s) in writing. In response, the Permittee(s) must amend the SWPPP to address the identified concerns and submit information requested by the MPCA, which may include an individual permit application. If the MPCA's written notification requires a response, failure to respond within the specified timeframe constitutes a permit violation.

## III.E. RECORD RETENTION

The SWPPP (original or copies) including, all changes to it, and inspections and maintenance records must be kept at the site during construction by the Permittee(s) who has operational control of that portion of the site. The SWPPP can be kept in either the field office or in an on-site vehicle during normal working hours. All owner(s) must keep the following records on file for three (3) years after submittal of the NOT as outlined in Part II.C. This does not include any records after submittal of the NOT.

- The final SWPPP
- Any other stormwater related permits required for the project
- Records of all inspection and maintenance conducted during construction (Part IV.E. Inspections and Maintenance)
- All permanent operation and maintenance agreements that have been implemented, including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance and
- All required calculations for design of the temporary and permanent Stormwater Management Systems.

## III.F. TRAINING REQUIREMENTS

The Permittee(s) shall ensure the following individuals identified in this part have been trained in accordance with this permit's training requirements.

- Who must be trained:
  - Individual(s) preparing the SWPPP for the project
  - Individual(s) overseeing implementation of, revising, and amending the SWPPP and individual(s) performing inspections as required in Part IV.E. One of these individuals(s) must be available for an onsite inspection within 72 hours upon request by the MPCA.
  - Individual(s) performing or supervising the installation, maintenance and repair of BMPs. At least one individual on a project must be trained in these job duties.
- Training content: The content and extent of training must be commensurate with the individual's job duties and responsibilities with regard to activities covered under this permit for the project. At least one individual present on the permitted project site (or available to the project site in 72 hours) must be trained in the job duties described in Part III.F.1.b. and Part III.F.1.c.
- The Permittee(s) shall ensure that the individuals are trained by local, state, federal agencies, professional organizations, or other entities with expertise in erosion prevention, sediment control, permanent stormwater management and the Minnesota NPDES/SOS Construction Stormwater Manual. An update refresher-training must be attended every three (3) years starting three (3) years from the issuance date of this permit.

## PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS

### IV.A. STORMWATER POLLUTION PREVENTION PLAN

The Permittee(s) must implement the SWPPP and the requirements of this part. The BMPs identified in the SWPPP and in this permit must be selected, installed, and maintained in an appropriate and functional manner that is in accordance with relevant manufacturer specifications and accepted engineering practices.

## IV.B. EROSION PREVENTION PRACTICES

- The Permittee(s) must plan for and implement appropriate BMPs such as construction phasing, vegetative buffer strips, horizontal slope grading, inspection and maintenance of Part IV.E. and other construction practices that minimize erosion as necessary to comply with this permit and protect waters of the state. The location of areas not to be disturbed must be delineated (e.g., with flags, stakes, signs, silt fences etc) on the project site before work begins. The Permittee(s) must minimize the need for disturbance of portions of the project that have steep slopes. For those sloped areas which must be disturbed, the Permittee(s) must use techniques such as planting and stabilization practices designed for steep slopes (e.g., slope draining and terracing).
- The Permittee(s) must stabilize all exposed soil areas (including stockpiles). Stabilization must be initiated immediately to limit soil erosion whenever any construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after the construction activity in that portion of the site has temporarily or permanently ceased. For Public Waters, that the Minnesota Department of Natural Resources has promulgated "work in water restrictions" during specified fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete the stabilization activities within 24 hours during the restriction period. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete blocks, and rockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement but must be in compliance with Part IV.C.5.
- Using stormwater conveyance channels, the Permittee(s) must design the channels to route water around unstabilized areas on the site and to reduce erosion, unless infeasible. The Permittee(s) must use erosion controls and velocity dissipation devices such as check dams, sediment traps, riprap, or grooved riprap at outlets within and along the length of any constructed stormwater conveyance channels and at any outflow to provide a non-erosive flow velocity, to minimize erosion of channels and their embankments, outlets, adjacent stream banks, slopes, and downstream waters during discharge conditions.
- The Permittee(s) must stabilize the normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, within 200 linear feet from the property edge, and from the point of discharge into any surface water. Stabilization of the last 200 linear feet must be completed within 24 hours after connecting to a surface water or property edge.

The Permittee(s) shall complete stabilization of the remaining portions of any temporary or permanent ditches or swales within 14 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch has temporarily or permanently ceased.

Temporary or permanent ditches or swales that are being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized during the temporary period of its use as a sediment containment system. These areas must be stabilized within 24 hours after no longer being used as a sediment containment system. Applying mulch, hydromulch, tackifier, polyacrylamide or similar erosion prevention practices is not acceptable stabilization in any part of a temporary or permanent drainage ditch or swale.

5. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.

6. Unless infeasible due to lack of pervious or vegetated areas, the Permittee(s) must direct discharges from BMPs to vegetated areas of the site (including any natural buffers) in order to increase sediment removal and maximize stormwater infiltration. The Permittee(s) must use velocity dissipation devices if necessary to prevent erosion when directing stormwater to vegetated areas.

## IV.C. SEDIMENT CONTROL PRACTICES

- The Permittee(s) must employ Sediment control practices as necessary to minimize sediment from entering surface waters, including curb and gutter systems and storm sewer lines.
  - Temporary or permanent drainage ditches and sediment basins that are designed as part of a sediment containment system (e.g., ditches with rock-check dams) require sediment control practices only as appropriate for site conditions.
  - If the down gradient sediment controls are overloaded (based on frequent failure or excessive maintenance requirements), the Permittee(s) must install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading, and the SWPPP must be amended to identify these additional practices as required in Part III.B.1.-3.
- Sediment control practices must be established on all down gradient perimeters and be located upgradient of any buffer zones. The control practice must be installed and operational before any land disturbing activities begin. These practices shall remain in place until Final Stabilization has been established in accordance with Part IV.G. A floating silt curtain placed in the water is not a sediment control BMP to satisfy perimeter control requirements in this part except when working on a shoreline and below the waterline. In such cases, a floating silt curtain can be used as a perimeter control practice if the floating silt curtain is installed as close to shore as possible. Immediately after the short term construction activity (e.g., installation of rip rap along the shoreline) in that area is complete, an upland perimeter control practice must be installed if exposed soils still drain to the surface water.

- The Permittee(s) shall re-install all sediment control practices that have been adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity has been completed. The Permittee(s) shall complete any short-term activity that requires removal of sediment control practices as quickly as possible. The Permittee(s) must re-install sediment control practices before the next precipitation event even if the short-term activity is not complete.
- All storm drain inlets must be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be removed for a particular inlet if a specific safety concern (street flooding/freesing) has been identified by the Permittee(s) or the jurisdictional authority (e.g., city/county/township/MDOT engineer). The Permittee(s) must document the need for removal in the SWPPP.
- Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in any natural buffers or surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the stormwater.

- Where vehicle traffic leaves any part of the site (or onto paved roads within the site):
  - The Permittee(s) must install a vehicle tracking BMP to minimize the track out of sediment from the construction site. Examples of vehicle tracking BMPs include (but are not limited to) rock pads, mud mats, slash mulch, concrete or steel wash racks, or equivalent systems.
  - The Permittee(s) must use street sweeping if such vehicle tracking BMPs are not adequate to prevent sediment from being tracked onto the street (see Part IV.E.5.d.).
- The Permittee(s) must install temporary sedimentation basins as required in Part III.C. of this permit.
- The Permittee(s) must minimize soil compaction and, unless infeasible, preserve topsoil. Minimizing soil compaction is not required where the function of a specific area of the site dictates that it be compacted.
- The Permittee(s) must preserve a 50 foot natural buffer (or if a buffer is infeasible on the site) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth ditch disturbances and stormwater flows to the surface water. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. The Permittee(s) is/are not required to enhance the quality of the vegetation that already exists in the buffer or provide vegetation if none exist. However, Permittee(s) can improve the natural buffer with vegetation.

- If the Permittee(s) intend to use polymers, flocculants, or other sedimentation treatment chemicals on the project site, the Permittee(s) must comply with the following minimum requirements:
  - The Permittee(s) must use conventional erosion and sediment controls prior to chemical addition to ensure effective treatment. Chemicals may only be applied where treated stormwater is directed to a sediment control system which allows for filtration or settlement of the floe prior to discharge.
  - Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed during construction, and to the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area.
  - Chemicals must be used in accordance with accepted engineering practices, and with dosing specifications and sediment removal design specifications provided by the manufacturer or provider/supplier of the applicable chemicals.

## IV.D. DEWATERING AND BASIN DRAINING

- The Permittee(s) must discharge turbid or sediment-laden waters related to dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sedimentation basin on the project site unless infeasible. The Permittee(s) may discharge from the temporary or permanent sedimentation basins to surface waters if the basin water has been visually checked to ensure adequate treatment has been obtained in the basin and that nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream properties. If the Permittee(s) must discharge water that contains oil or grease, the Permittee(s) must use an oil-water separator or suitable filtration device (e.g. cartridge filters, absorbent pads) prior to discharging the water. The Permittee(s) must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock riprap, sand bags, plastic sheeting, or other accepted energy dissipation measures.
- All water from dewatering or basin-draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in wetlands causing significant adverse impact to the wetland.
- If the Permittee(s) is/are using filters with backwash water, the Permittee(s) must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion. The Permittee(s) may discharge backwash water to the sanitary sewer if permission is granted by the sanitary sewer authority. The Permittee(s) must replace and clean the filter media used in dewatering devices when required to retain adequate function.

## IV.E. INSPECTIONS AND MAINTENANCE

- The Permittee(s) must ensure that a trained person (as identified in Part III.A.3.a.) will routinely inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within seven (7) days after the rainfall event.
- All inspections and maintenance conducted during construction must be recorded within 24 hours in writing and these records must be retained with the SWPPP in accordance with Part III.E. Records of each inspection and maintenance activity shall include:
  - Date and time of inspections
  - Name of person(s) conducting inspections
  - Findings of inspections, including the specific location where corrective actions are needed
  - Corrective actions taken (including dates, times, and party completing maintenance activities)
  - Date and amount of all rainfall events greater than 1/2 inch (0.5 inches) in 24 hours. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, a weather station that is within 1 mile of your location or a weather reporting system that provides site specific rainfall data from radar summaries.
  - If any discharge is observed to be occurring during the inspection, a record of all portions of the property from which there is a discharge must be made, and the discharge should be described (i.e., color, odor, floating, settled, or suspended solids, foam, oil, sheen, and other obvious indicators of pollutants) and photographed.
  - Any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Part III.B. within seven (7) calendar days.
- Inspection frequency adjustment
  - Where parts of the project site have permanent cover, but work remains on other parts of the site, the Permittee(s) may reduce inspections of the areas with permanent cover to once per month.
  - 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 during non-frozen ground conditions at least once per month for a period of 12 months. Following the twelfth month of permanent cover and no construction activity, inspections may be terminated until construction activity is once again initiated unless the Permittee(s) is/are notified in writing by the MPCA that erosion issues have been detected at the site and inspections need to resume.
  - Where work has been suspended due to frozen ground conditions, the inspections may be suspended. The required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever comes first.

4. The Permittee(s) is/are responsible for the inspection and maintenance of temporary and permanent water quality management BMPs, as well as all erosion prevention and sediment control BMPs, until another Permittee has obtained coverage under this Permit according to Part II.B.5. or the project has undergone Final Stabilization, and an NOT has been submitted to the MPCA.

5. The Permittee(s) must inspect all erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness during all routine and post-rainfall event inspections. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery unless another time frame is specified below. The Permittee(s) must investigate and comply with the following inspection and maintenance requirements:
 

- All perimeter control devices must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches one-half (1/2) of the height of the device. These repairs must be made by the end of the next business day after discovery, or thereafter as soon as field conditions allow access.
- Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches one-half (1/2) the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access (see Part IV.D.).
- Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of erosion and sediment deposition during each inspection. The Permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The Permittee(s) shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The Permittee(s) is/are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters.
- Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces both on and off site within 24 hours of discovery, or if applicable, within a shorter time to comply with Part IV.C.6.
- Streets and other areas adjacent to the project must be inspected for evidence of off-site accumulations of sediment. If sediment is present, it must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets) could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).

All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area. All infiltration areas must be inspected to ensure that equipment is not being driven across the infiltration area.

## IV.F. POLLUTION PREVENTION MANAGEMENT MEASURES

- The Permittee(s) shall implement the following pollution prevention management measures on the site:
- Storage, Handling, and Disposal of Construction Products, Materials, and Wastes: The Permittee(s) shall comply with the following to minimize the exposure to stormwater of any of the products, materials, or wastes. Products or wastes which are either not a source of contamination to stormwater or are designed to be exposed to stormwater are not held to this requirement:
    - Building products that have the potential to leach pollutants must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by a similarly effective means designed to minimize contact with stormwater.
    - Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by similarly effective means designed to minimize contact with stormwater.
    - Hazardous materials, toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste or hazardous materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable.
    - Solid waste must be stored, collected and disposed of properly in compliance with Minn. R. ch. 7035.
    - Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. ch. 7041.
  - Fueling and Maintenance of Equipment or Vehicles: Spill Prevention and Response: The Permittee(s) shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded including the use of drip pans or absorbents unless infeasible. The Permittee(s) must conduct fueling in a contained area unless infeasible. The Permittee(s) must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. The Permittee(s) must report and clean up spills immediately as required by Minn. Stat. § 115.061, using dry clean up measures where possible.
  - Vehicle and equipment washing: If the Permittee(s) wash the exterior of vehicles or equipment on the project site, washing must be limited to a defined area of the site. Runoff from the washing area must be contained in a sediment basin or other similarly effective controls and waste from the washing activity must be properly disposed of. The Permittee(s) must properly use and store soaps, detergents, or solvents. No engine degreasing is allowed on site.
  - Concrete and other washouts waste: The Permittee(s) must provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds and other construction materials) related to the construction activity. The liquid and solid washout wastes must not contact the ground, and the containment used to be designed so that it does not result in runoff from the washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

## IV.G. FINAL STABILIZATION

The Permittee(s) must ensure Final Stabilization of the site. Final Stabilization is not complete until all requirements of Parts IV.G.1-5. are complete:

- All soil disturbing activities at the site have been completed and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.
- The permanent stormwater management system is constructed, meets all requirements in Part III.D. and is operating as designed. Temporary or permanent sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems and ditches are stabilized with permanent cover.
- All temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) have been removed on the portions of the site for which the Permittee(s) is/are responsible. BMPs designed to decompose on site (such as some compost logs) may be left in place.
- For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished and temporary erosion protection and downgradient perimeter control has been completed and the residence has been sold to the homeowner. Additionally, the Permittee has distributed the MPCA's "Homeowner Fact Sheet" to the homeowner to inform the homeowner of the need for, and benefits of, permanent cover.
- For construction projects on agricultural land (e.g., pipelines across crop, field pasture or range land) the disturbed land has been returned to its preconstruction agricultural use.

# DEVELOPMENT SUMMARY

## THE WOODLANDS - 4TH ADDITION - RAMSEY, MN

TYPE OF PROJECT : 27 Lot Single Family Residential Construction

TYPE OF WORK : Grading, Utility and Street Construction, Paving, Subsequently, Joint Trench and Home construction will occur.

TOTAL PLATTED AREA : 20.47 AC.

TOTAL DISTURBED AREA : 5.87 AC.

EXISTING IMPERVIOUS AREA : 0.36 AC.

PROPOSED (DESIGN) IMPERVIOUS AREA : 3.65 AC (ROADWAYS, SIDEWALK, ROOFTOPS)

SPECIAL WATERS : There are no special or impaired water within one mile of the site.

## PROJECT NARRATIVE

The Woodlands 4th Addition will complete the originally platted Woodlands and add in 14 Lots from the St. Hilaire Plat. Stormwater from the original Woodlands development is accounted for within basins constructed in the 1st, 2nd, and 3rd additions to the Woodlands. Stormwater from the St. Hilaire property will be collected and treated via a wet detention pond at the south end of the site. Because of the proximity to the ground water table, infiltration is not allowed and will be completed by purchasing off-site infiltration mitigation.

## CONSTRUCTION PHASING

The project is expected to be constructed in a single phase, within one construction season. Utility and street construction is anticipated to be completed within 8 weeks from commencement of work. Private utilities (Gas/Telephone/Electric/Cable) will be installed after street construction is complete. Followed by final site stabilization.

## POTENTIAL FOR EROSION AND DISCHARGE OF SEDIMENT

As the site will be stripped of topsoil and vegetation for a period of several weeks during construction, the potential for erosion will increase. The proposed stormwater basins and street subcut will serve as temporary sediment basins during construction.

The risk of discharge of sediment off of the site is moderate, due to the grade orientation and design. This can be controlled by heavy duty silt fence, buffer strips, erosion control blanket, and temporary sediment basins.

Contractor will be required to manage completion of 3:1 slopes such that soil exposure is minimized. After excavation and embankments are completed, slopes shall be re-spread with topsoil, the slope grades certified, and erosion blanket installed as per the plan. Contractor shall coordinate these steps to be carried out in a timely manner.

## EROSION CONTROL BMPs

- The construction plans anticipate the use of, but are not limited to, the following Erosion Control BMPs:
- Perimeter delineation to minimize disturbed areas
  - Temporary Rock Construction Entrance
  - Temporary silt mulch as needed.
  - Seed and mulch/sod
  - Erosion Control Blanket
  - Minimize active or disturbed work areas
  - Turf reinforcement mat (TRIM)
  - Horizontal slope grading

## SEDIMENT CONTROL BMPs

- The construction plans anticipate the use of, but are not limited to, the following Sediment Control BMPs
- Sediment traps constructed in street subcut
  - Utilize permanent stormwater basin as Temporary Sediment Basin
  - Silt Fence at existing perimeter or toe of slopes
  - Inlet protection on project catch basins
  - Inlet protection on existing culverts
  - Inlet protection after utility construction
  - Linear control along back of new curb and gutter (biroll or silt fence)
  - Routine street sweeping adjacent to construction entrance.
  - Ditch checks

## BASIN AND TRAP DEWATERING BMPs

Should the need arise for basin or trap dewatering, the contractor shall utilize a floating skimmer pump intake such that the water is drawn from the surface of the basin. Pumped effluent shall not be discharged into Surface Waters in a turbid state. Turbid effluent shall be filtered with mechanical devices, chemical filtering, or a combination thereof, to a state of 50 NTUs or less.

Refer to plans for designated locations of BMPs, details and implementation notes.

## STABILIZATION BMPs

The construction plans anticipate the use of, but are not limited to, the following Stabilization BMPs:

- After 3:1 slopes on lots are certified, permanent seed and erosion control blanket can be applied.
- Rip rap at pipe outfalls
- Permanent seed and erosion control blanket on basin slopes after grade certified.
- After curbs are backfilled, apply permanent seed and mulch to remaining building pads and boulevard area not already stabilized.
- Sod placement, as appropriate.

## POLLUTION CONTROL BMPs

- Fueling: A fixed fueling station is not anticipated. Contractor will be required to implement BMPs for onsite re-fueling of equipment.
- Concrete Washout: A suggested washout area will be specified on the plan. The developer has the ability to adjust location or to provide alternative washout containment.
- There is not an anticipated need for storing chemicals, paints, solvents or other potentially toxic or hazardous materials on site.

## SEED & MULCH SPECIFICATIONS

Seed placed for permanent cover or final stabilization requires 6" minimum topsoil cover. Exception: Infiltration/Filtration basins - see basin details for soil type). Multiple site visits will be required to accommodate permanent or temporary stabilization as required during the phases of construction.

## (1) General Seed & Mulch

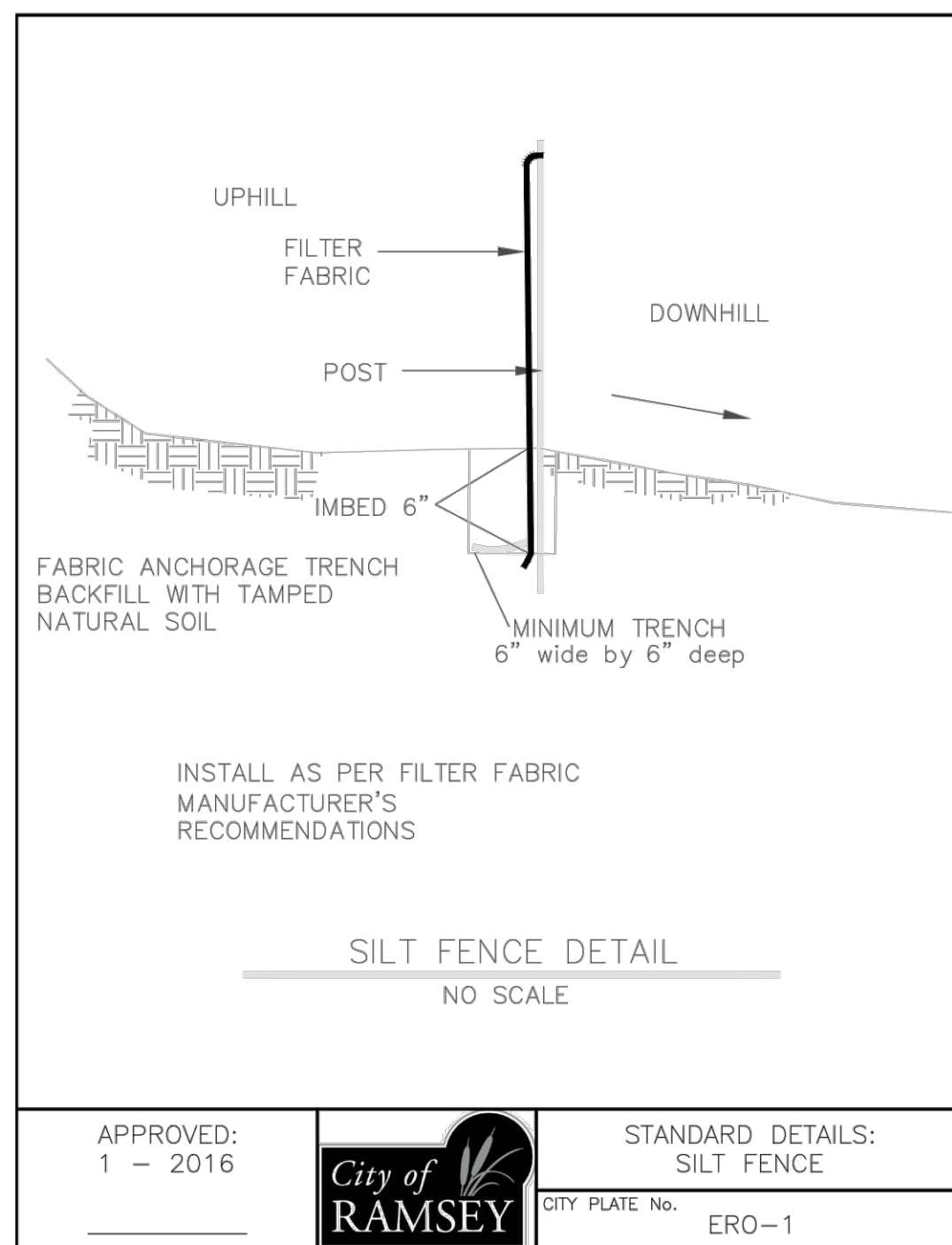
- Seed: MNDOT 25-141 at a rate of 59 lb/acre
- Fertilizer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
- Mulch: MNDOT Type 1 at a rate of 2 tons/acre
- Stormwater/Filtration Basins (Aquatic Bench & Filtration Basin Only)
  - Seed: MNDOT 34-262 at a rate of 15 lb/acre
  - Fertilizer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
  - Mulch: MNDOT Type 3 at a rate of 2 tons/acre
  - Stormwater/Filtration Bank (Stormwater Basin & Filtration Basin OLE to HWL)
    - Seed: MNDOT 33-261 at a rate of 35 lb/acre
    - Fertilizer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
    - Mulch: MNDOT Type 3 at a rate of 2 tons/acre
    - Stormwater/Filtration Bank (Stormwater Basin & Filtration Basin OLE to HWL)
      - Seed: MNDOT 33-261 at a rate of 35 lb/acre
      - Fertilizer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
      - Mulch: MNDOT Type 3 at a rate of 2 tons/acre

## INSPECTION AND MAINTENANCE OF BMPs

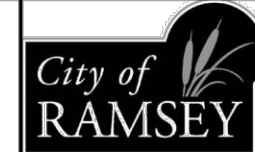
- Routine Inspection
- Rock Entrances - Inspect weekly. If rock becomes filled with sediment and tracked material to the extent the purpose ceases to function, remove the contaminated rock and replace with new rock.
  - Silt fence - Inspect weekly, particularly for damaged sections, breaches, down-gradient areas, flow concentration points, scour areas and sections adjacent to sensitive areas. Where capacity is filled to more than 50% of depth, sediment shall be removed to restore capture capacity.
  - Sediment traps and basins - Inspect weekly. Where capacity is filled to more than 50% of depth, sediment shall be removed to restore capture capacity within 72 hours of discovery.
  - Inlet Protection - Inspect weekly or more frequently as needed after multiple rainfalls less than 0.5". Verify intake capacity is not compromised. Where capacity is filled to more than 50% of depth, sediment shall be removed to restore capture capacity.
  - Inspect other site specific BMPs on a weekly basis minimum.

## Rain Event Inspection - Mandatory, within 24 hours after a rain event 0.5" or greater. Complete all items associated with Routine Inspection. Furthermore, inspect site for breaches, failures, scours and gullying. Take corrective actions as necessary to restore functionality to the BMPs. If a given situation is discovered to be prone to repetitive failure, advise the Engineer and Contractor for SWPPP and BMP amendments.

## ADDITIONAL SWPPP NOTES

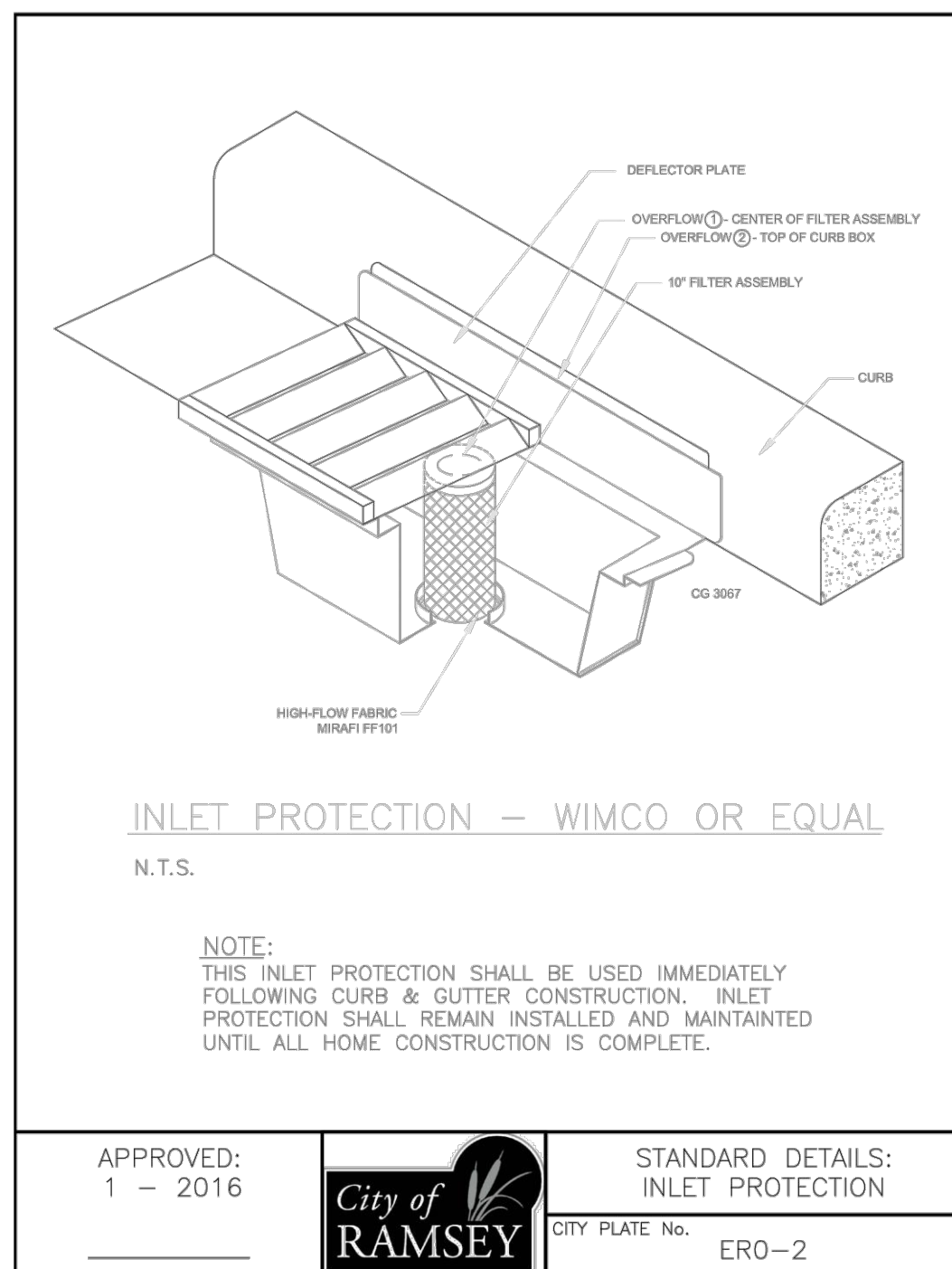


APPROVED:  
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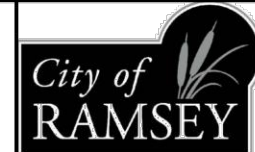


STANDARD DETAILS:  
SILT FENCE

CITY PLATE No. ERO-1



APPROVED:  
1 - 2016



STANDARD DETAILS:  
INLET PROTECTION

CITY PLATE No. ERO-2

**CONCRETE WASHOUT CONTAINMENT**

The Owner requires the use of contained concrete washout areas.

Contained concrete washout area locations shall be identified on the Storm Water Pollution Prevention Plan (SWPPP). Containers shall be placed in safe, easily accessible, and in locations approved by the Engineer.

Contained concrete washout area must be clearly labeled "Concrete Washout Area"

Contained concrete washout area must be watertight.

Contained concrete washout area's overall condition and approximate volume must be noted on each weekly erosion control inspection report.

Contained concrete washout area must have a minimum capacity size of 12'x8'x2' or 10 cubic-yards volume.

Contained concrete washout area must be maintained once levels reach  $\frac{3}{4}$  full.

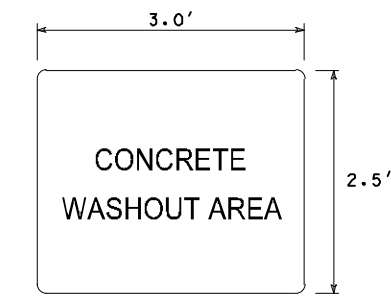
Concrete waste must be disposed of properly in accordance to MPCA requirements, State, and Federal laws.

Damage to the contained concrete washout containment system must be reported to the Owner within 24 hours of discovery.

An Owner-approved concrete washout vendor must be used and a minimum of a monthly maintenance contract issued. A copy of this contract must be kept on file with the Owner.

**Corrective Action**

The Owner reserves the right to direct any required maintenance or removal of any concrete waste on site. This includes, but is not limited to, leaking containers, containers that are more than  $\frac{1}{2}$  full for one inspection period, any concrete washout piles throughout the site, and concrete slurry resulting from cutting and masonry work. The fees incurred from the maintenance or removal of concrete waste is incidental to the work generating the waste, and no additional compensation will be made thereto.



CONCRETE WASHOUT SIGN DETAIL

MNDOT 2016 SPEC

MNDOT 2016 SPEC TABLE 3877-1 COMMON TOPSOIL BORROW REQUIREMENT	RANGE	TEST METHOD
MATERIAL PASSING THE 3/4 IN [19MM]	100%	ASTM D 422
MATERIAL PASSING NO. 4 [4.75MM]	>85%	-
CLAY	5% - 35%	ASTM D 422
SILT	5% - 70%	ASTM D 422
SAND	10% - 75%	ASTM D 422
ORGANIC MATTER	3% - 15%	ASTM D 2974
pH	6.1-7.8	ASTM G 51

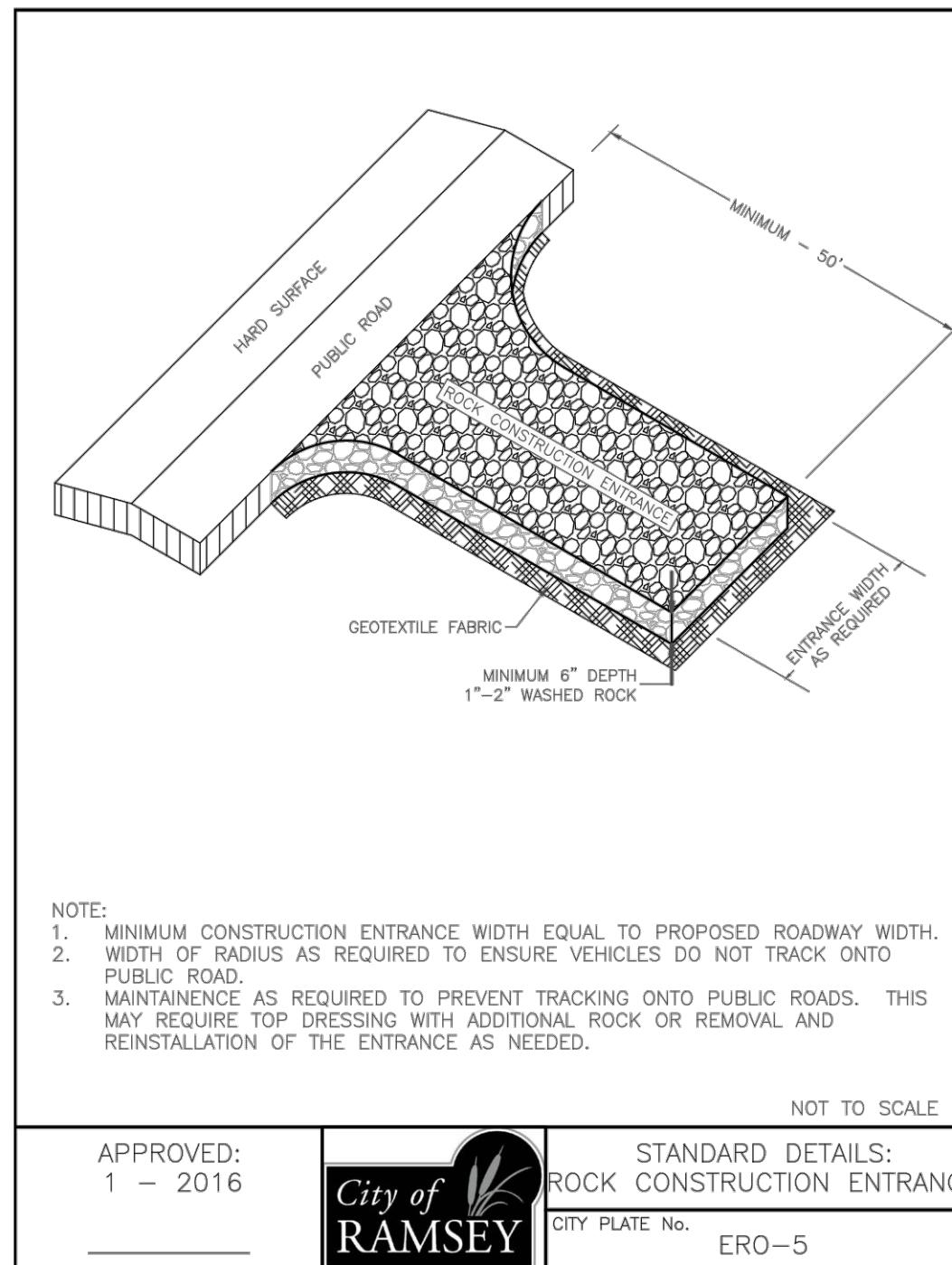
NOTE:  
1. INSTALLATION OF 4" OF TOPSOIL MEETING MNDOT SPECIFICATION 3877A COMMON TOPSOIL BORROW, MAY BE REQUIRED ACROSS ALL DISTURBED AREAS.  
2. A SOIL CERTIFICATION FROM A GEOTECHNICAL FIRM MUST BE PROVIDED VERIFYING THE TOPSOIL MEETS SPECIFICATION ALONG WITH LOAD TICKETS TO VERIFY THE SOURCE OF MATERIAL AND QUANTITY.  
3. TOPSOIL MUST COME FROM A CITY APPROVED SOURCE.

APPROVED:  
1 - 2016

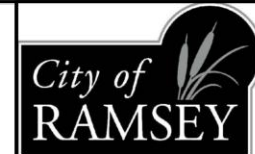


CITY PLATE No. ERO-6

STANDARD DETAILS:  
TOPSOIL REQUIREMENTS



APPROVED:  
1 - 2016



STANDARD DETAILS:  
ROCK CONSTRUCTION ENTRANCE

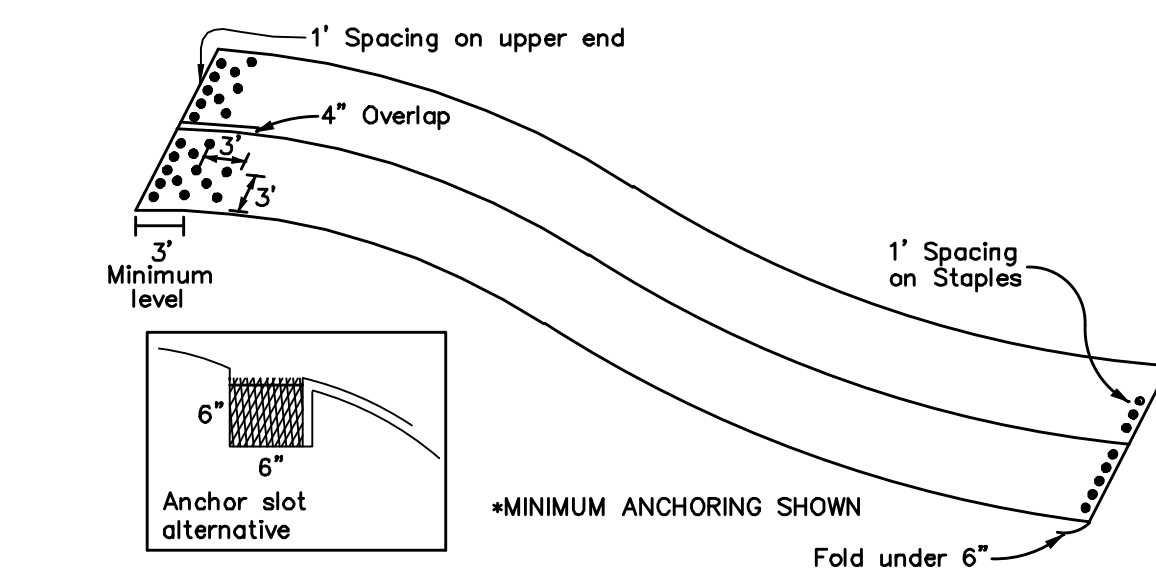
CITY PLATE No. ERO-5



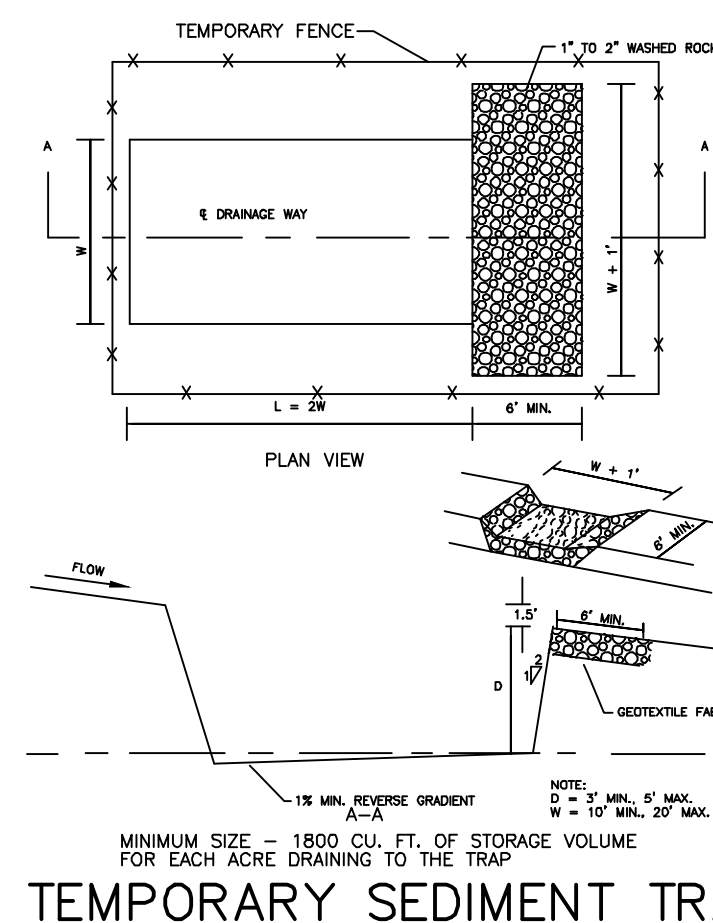
- MAINTENANCE:  
- CONTAINER MUST BE MONITORED ON A WEEKLY BASIS AND CONDITION NOTED ON EROSION & SEDIMENT CONTROL INSPECTION REPORT.  
- CONCRETE MUST BE REMOVED ONCE THE CONTAINER IS FULL. CONCRETE MUST BE DISPOSED OF PROPERLY.
- CONTAINER SPECIFICATIONS:  
- CONTAINER MUST BE CLEARLY LABELED "CONCRETE WASHOUT AREA"  
- CONTAINER MUST BE PLACED IN AN EASILY ACCESSIBLE AND UNSIGHTLY LOCATION  
- THE CONTAINER MUST BE PORTABLE AND WATER TIGHT.  
- THE CONTAINER MAY HAVE ACCESS RAMPS.  
- THE CONTAINER MUST HAVE A MINIMUM HOLDING CAPACITY OF 20 CUBIC YARDS OF WASHED CONCRETE.

CONCRETE WASHOUT DETAIL

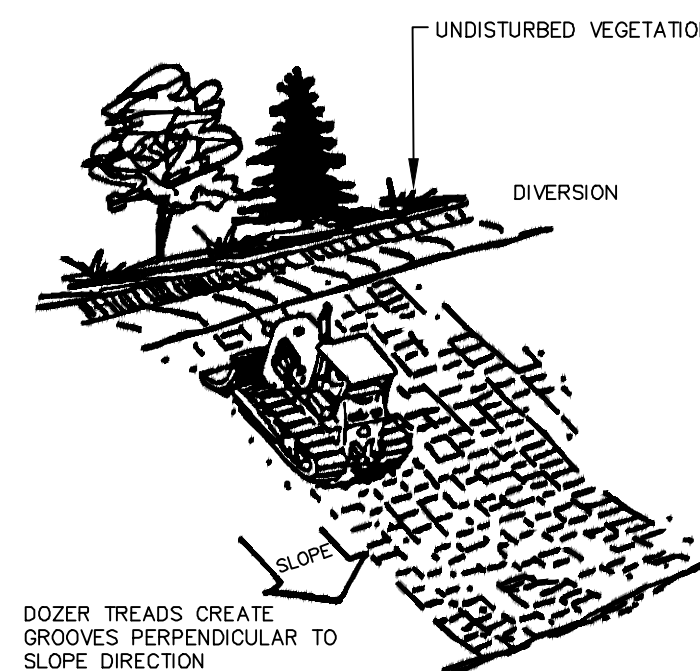
**CONCRETE WASHOUT AREA**



**EROSION CONTROL BLANKET-CATEGORY 3**  
(TO BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS)



**TEMPORARY SEDIMENT TRAP**

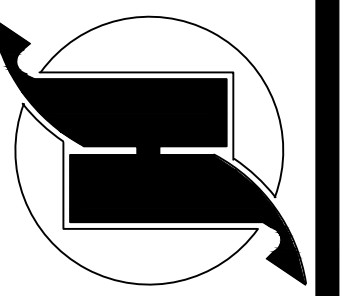


**HORIZONTAL SLOPE GRADING**

**BENCHMARK**

- #1 TNH LOT 1, BLOCK 2, WOODLANDS 1ST ADD.  
TOP NUT HYDRANT ELEV=897.75
- #2 TNH LOTS 6&7, BLOCK 4, WOODLANDS 1ST ADD.  
TOP NUT HYDRANT ELEV=885.00

**James R. Hill, Inc.**  
PLANNERS / ENGINEERS / SURVEYORS  
2500 W. Cty. Rd. 42, SUITE 120, BURNSVILLE, MN 55337  
PHONE: (952)890-6044 FAX: (952)890-6244



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 Professional Engineer under the laws of the State of Minnesota.  
J. R. HILL, P.E.  
Date: 02/16/2016 Reg. No. 18495

**THE WOODLANDS - 4th ADDITION**  
RAMSEY, MINNESOTA  
**EROSION & SEDIMENT CONTROL DETAILS**  
FOR  
**LENNAR**  
16305 36TH AVE N., #600, PLYMOUTH, MN 55446

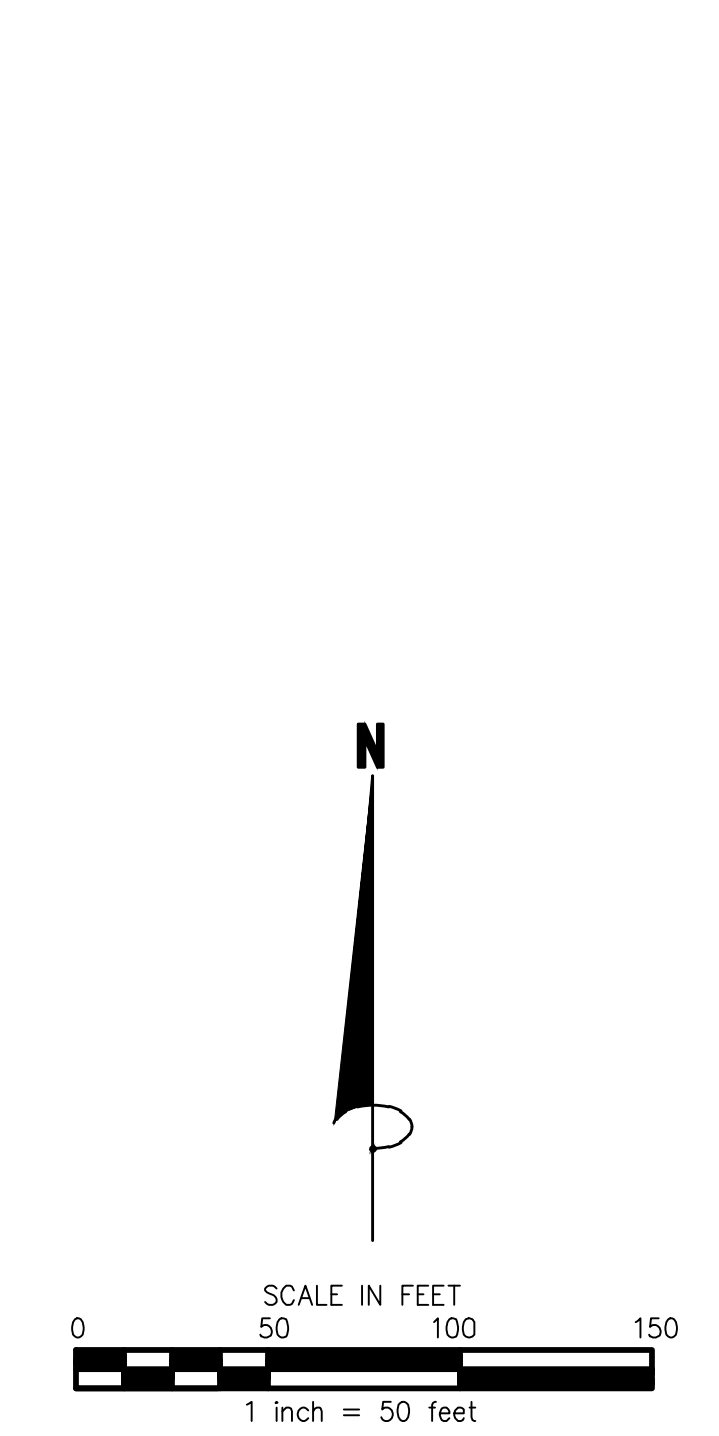
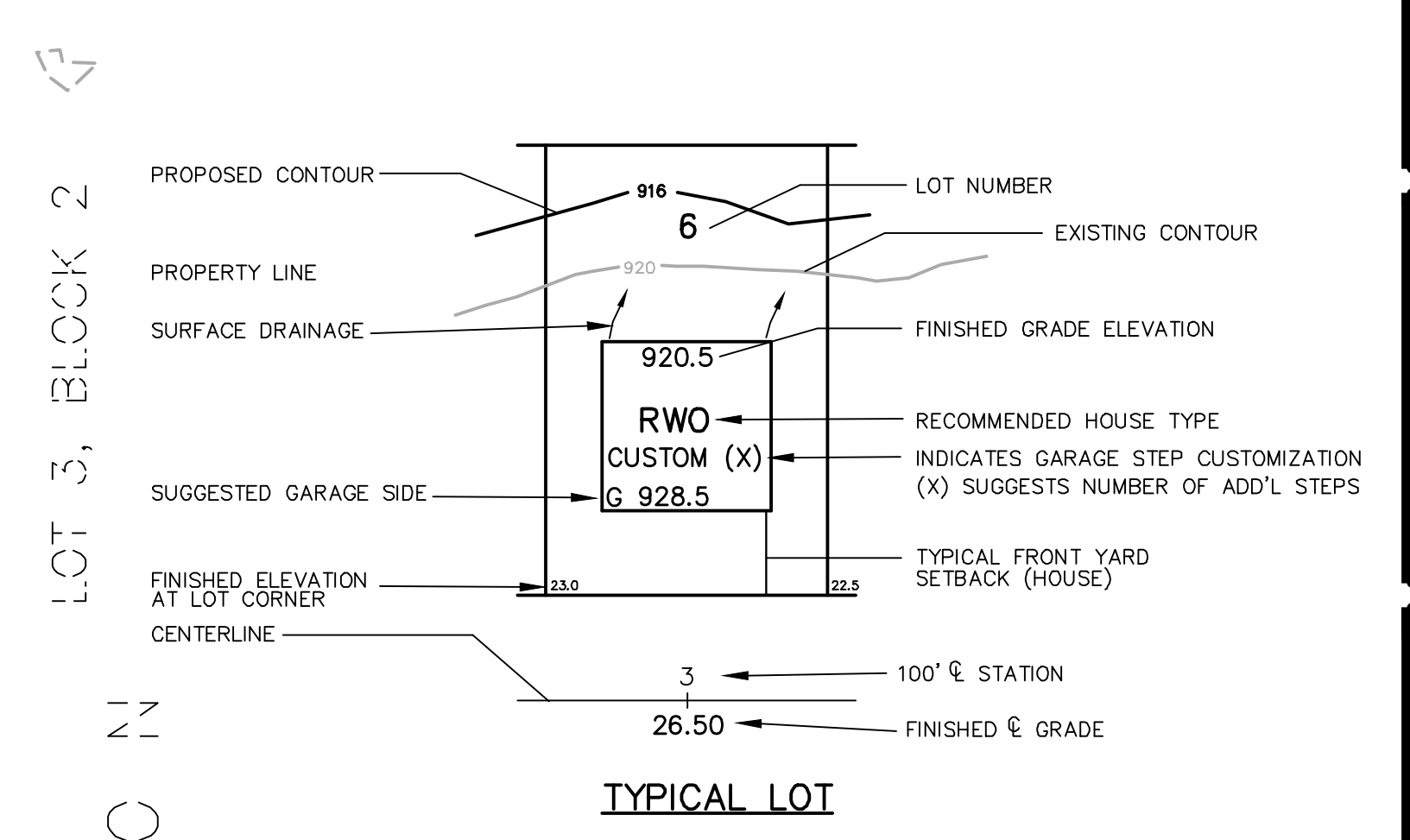
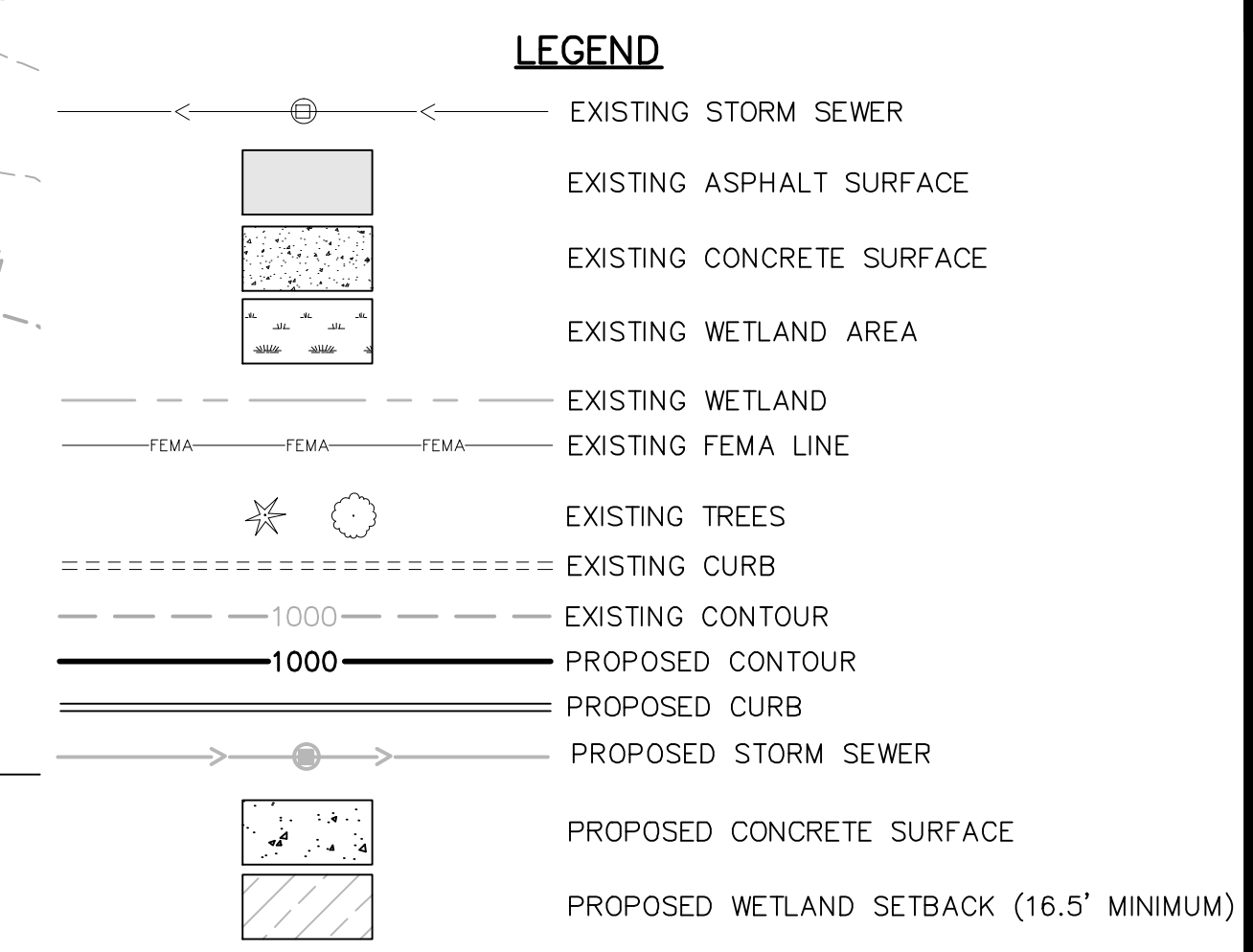
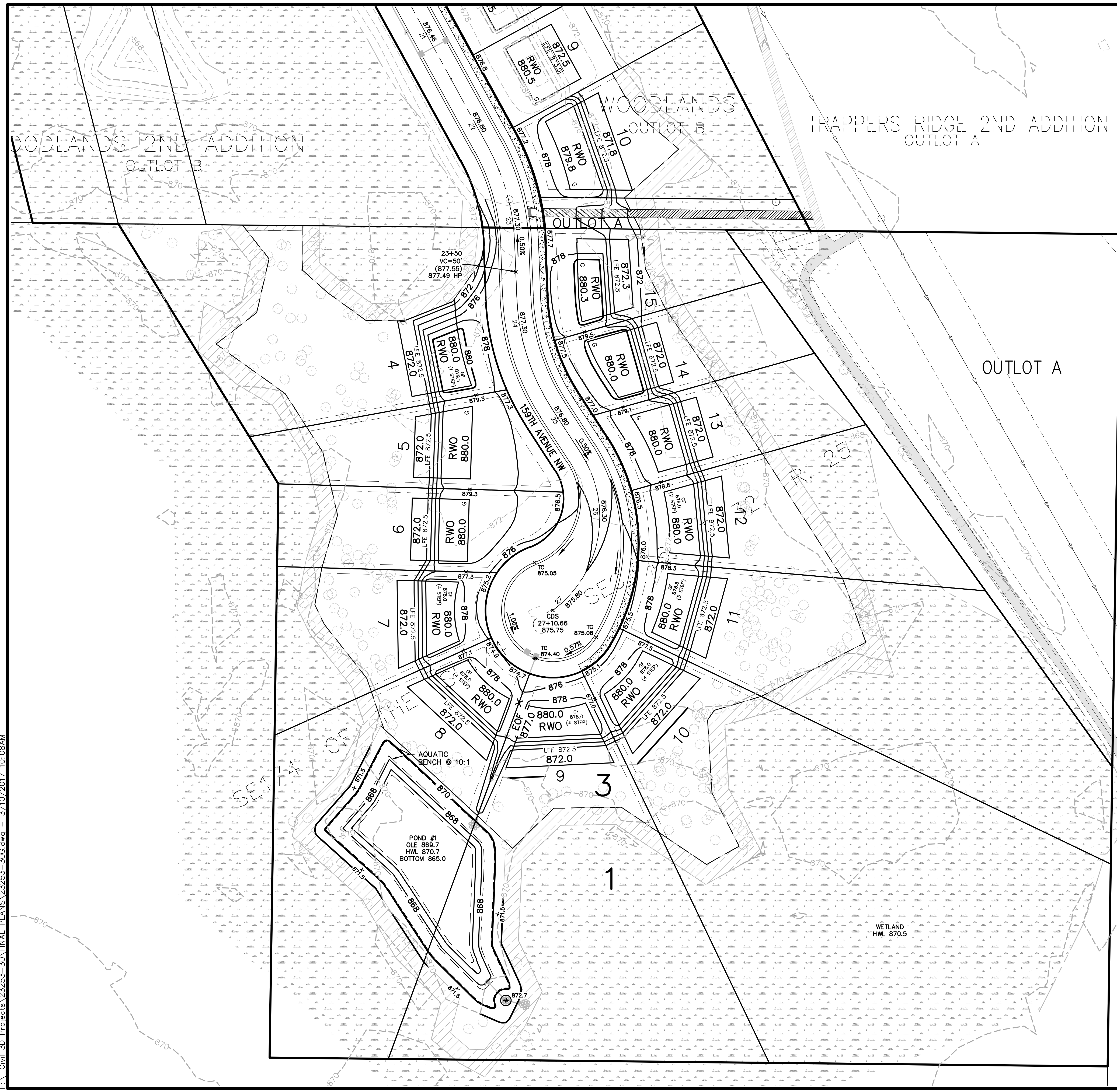
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CJK  
DATE  
03/03/2017  
REVISIONS

CAD FILE  
23253-30ERD  
PROJECT NO.  
23253-30  
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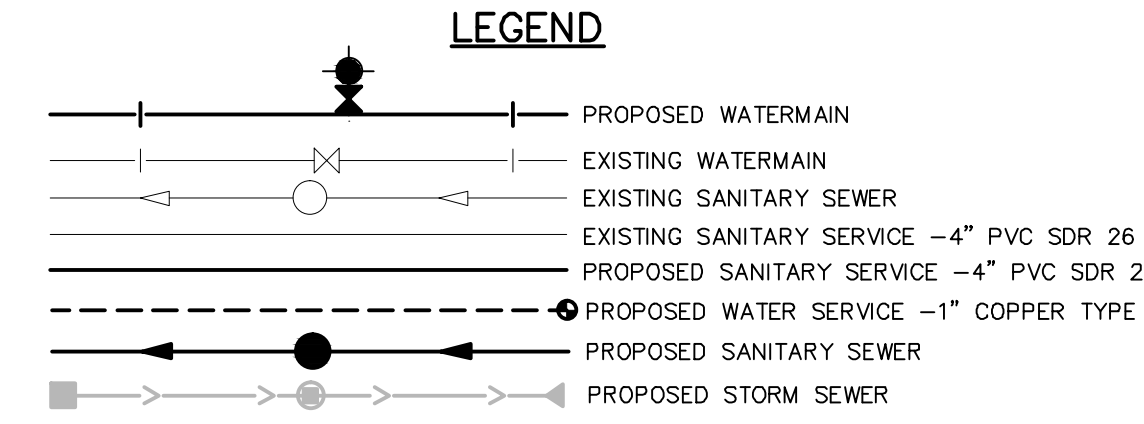
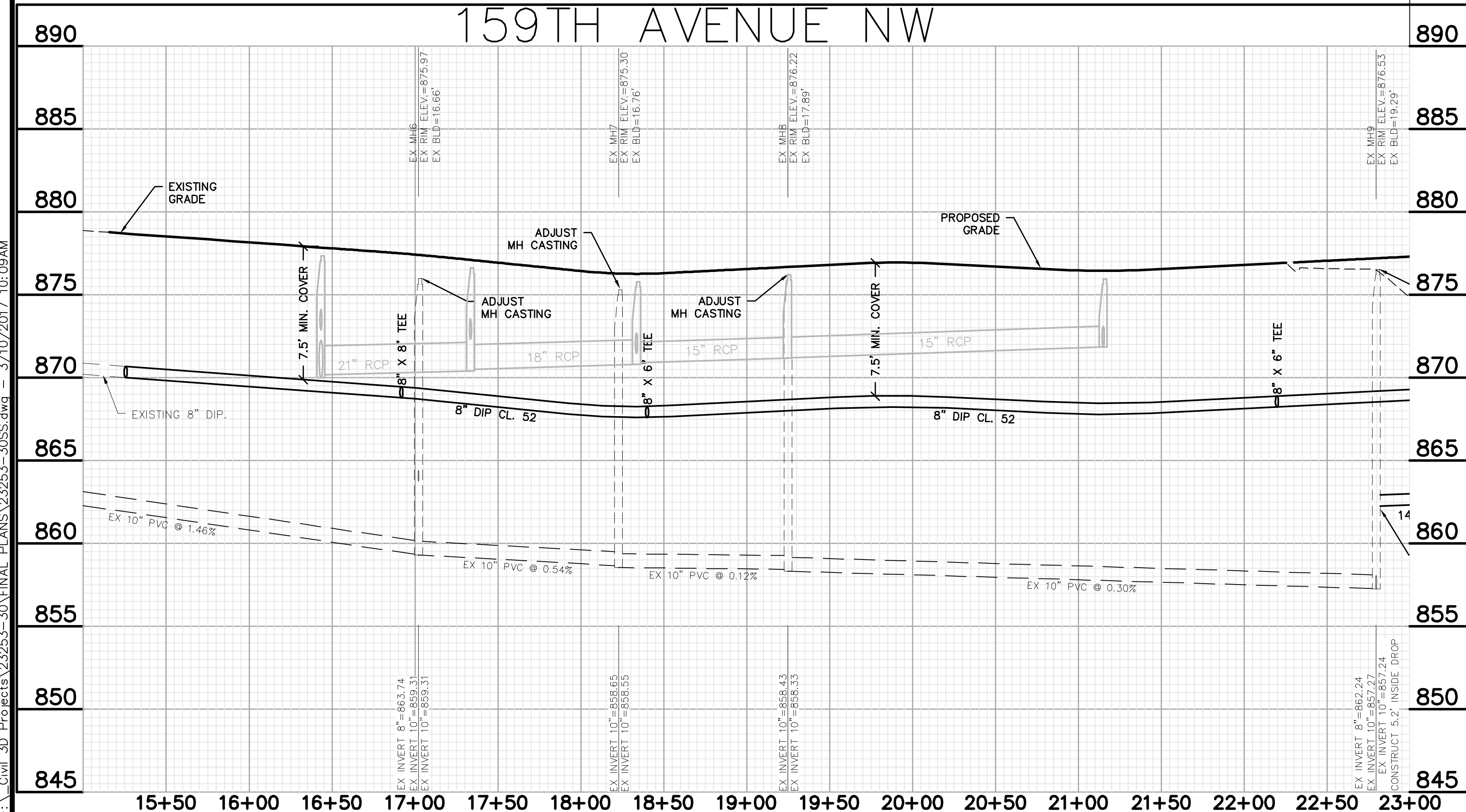
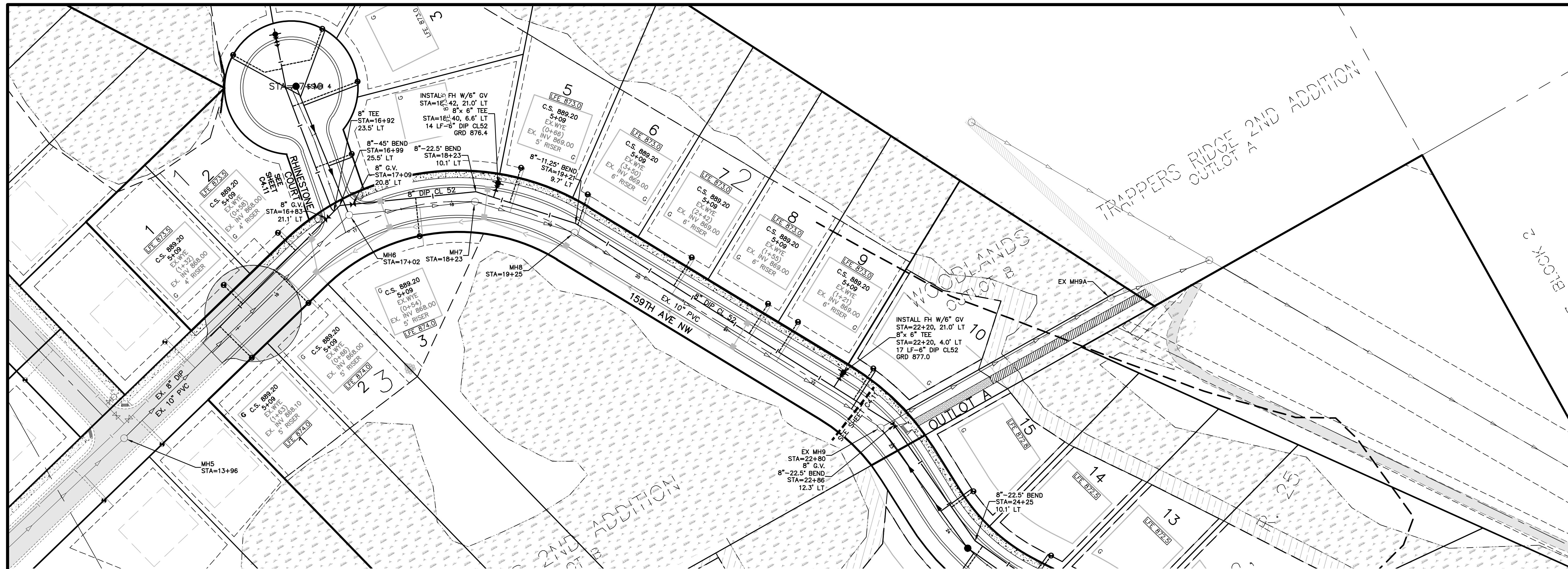
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 J. R. Hill, P.E.  
 Date: 02/16/2016 Reg. No. 18495

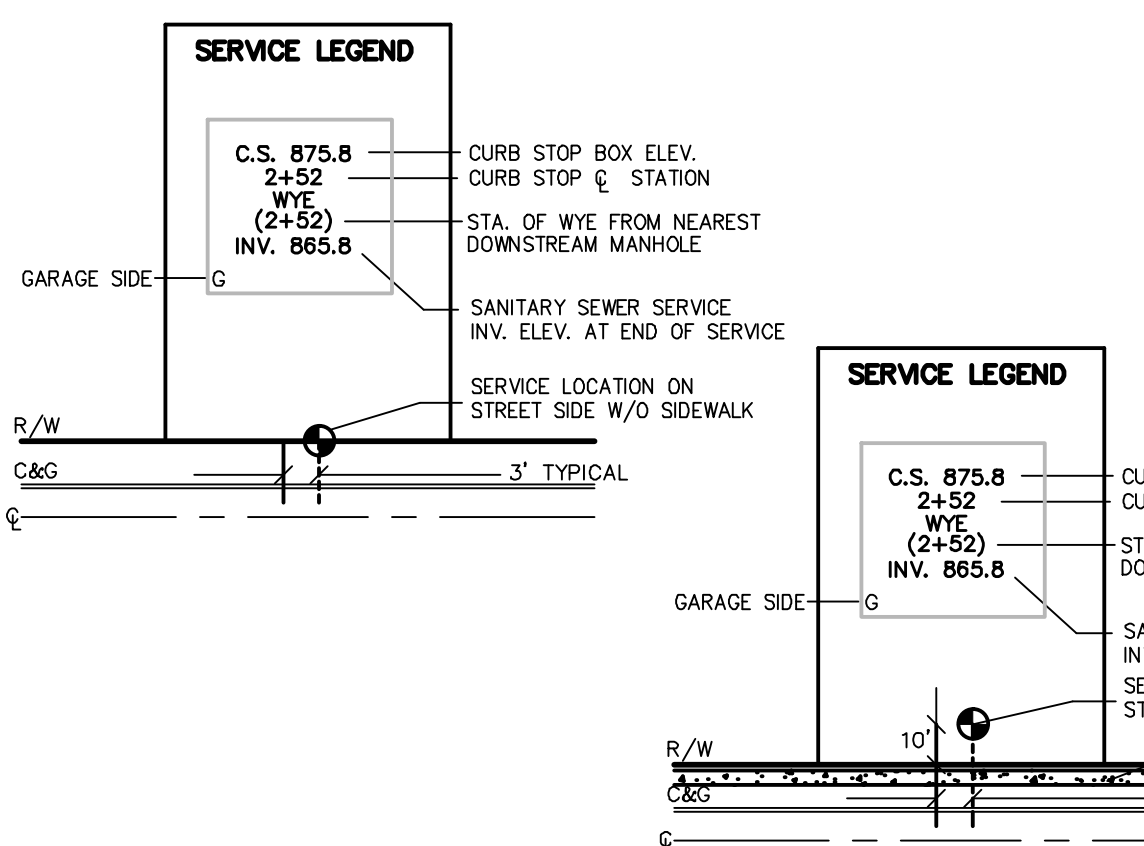
**THE WOODLANDS — 4th ADDITION**  
 RAMSEY, MINNESOTA  
**PRELIMINARY GRADING & DRAINAGE PLAN**  
 FOR  
**LENNAR**  
 16305 36TH AVE N, #600, PLYMOUTH, MN 55446

DRAWN BY CJK	CAD FILE 23253-30G
DATE 03/03/2017	PROJECT NO. 23253-30
REVISIONS	3.30





- NOTES**
- 1.) ALL WATER STUBS AND DIP SERVICES MUST BE TIED/RESTRAINED FROM PLUG TO MAINLINE TEE BY A CITY APPROVED METHOD.
  - 2.) THE LOCATION OF ALL VERTICAL/HORIZONTAL BENDS, SEWER SERVICE INVERTS NEED TO BE VERIFIED BEFORE BACKFILLING PER MOPPS REQUIREMENTS.
  - 3.) ALL WATERMAIN (DIP CL 52 & DIP CL 53) SHALL BE INSTALLED WITH GRANULAR BEDDING.
  - 4.) ALL FITTINGS SHALL BE AMERICAN MADE DIP-COMPACT AND FUSION BONDED EPOXY COATED. ALL BOLTS AND FASTENERS SHALL BE AMERICAN MADE STAINLESS STEEL.
  - 5.) WATERTIGHT WRAP OR APPROVED EQUAL MUST BE INSTALLED WITH THE CASTING AND RINGS OF ALL THE SANITARY MANHOLES.
  - 6.) SANITARY WYES, RISERS, AND SERVICES INSTALLED PER 1ST ADDITION PLANS. VERIFY SERVICE INVERTS PRIOR TO CONSTRUCTION.
  - 7.) ALL 6" AND SMALLER DIP SHALL BE CLASS 53



**BENCHMARK**

TNH LOT 1, BLOCK 2 (WOODLANDS 1ST ADD.)  
TOP NUT HYDRANT ELEV=897.75

TNH LOTS 6&7, BLOCK 4 (WOODLANDS 1ST ADD.)  
TOP NUT HYDRANT ELEV=885.00

SCALE IN FEET  
0 50 100 150  
1 inch = 50 feet

**James R. Hill, Inc.**  
PLANNERS / ENGINEERS / SURVEYORS  
2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337  
PHONE: (952)890-6044 FAX: (952)890-6244

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 Professional Engineer under the laws of the State of Minnesota.  
J. R. Hill, P.E.  
Date: 02/16/2016 Reg. No. 18495

**THE WOODLANDS - 4th ADDITION**  
RAMSEY, MINNESOTA  
**SANITARY SEWER & WATERMAIN CONSTRUCTION**  
159TH AVENUE NW  
FOR  
**LENNAR**  
16305 36TH AVE N., #600, PLYMOUTH, MN 55446

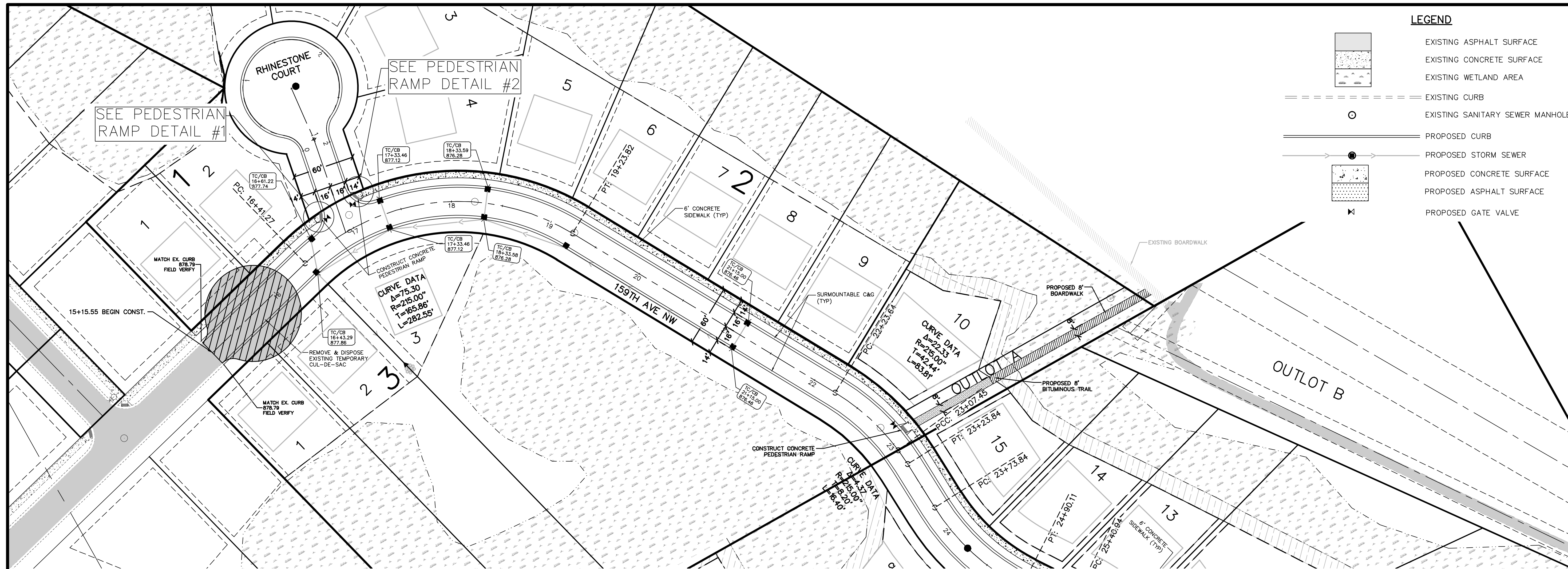
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REVISIONS	
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PROJECT NO.	23253-30
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**LEGEND**

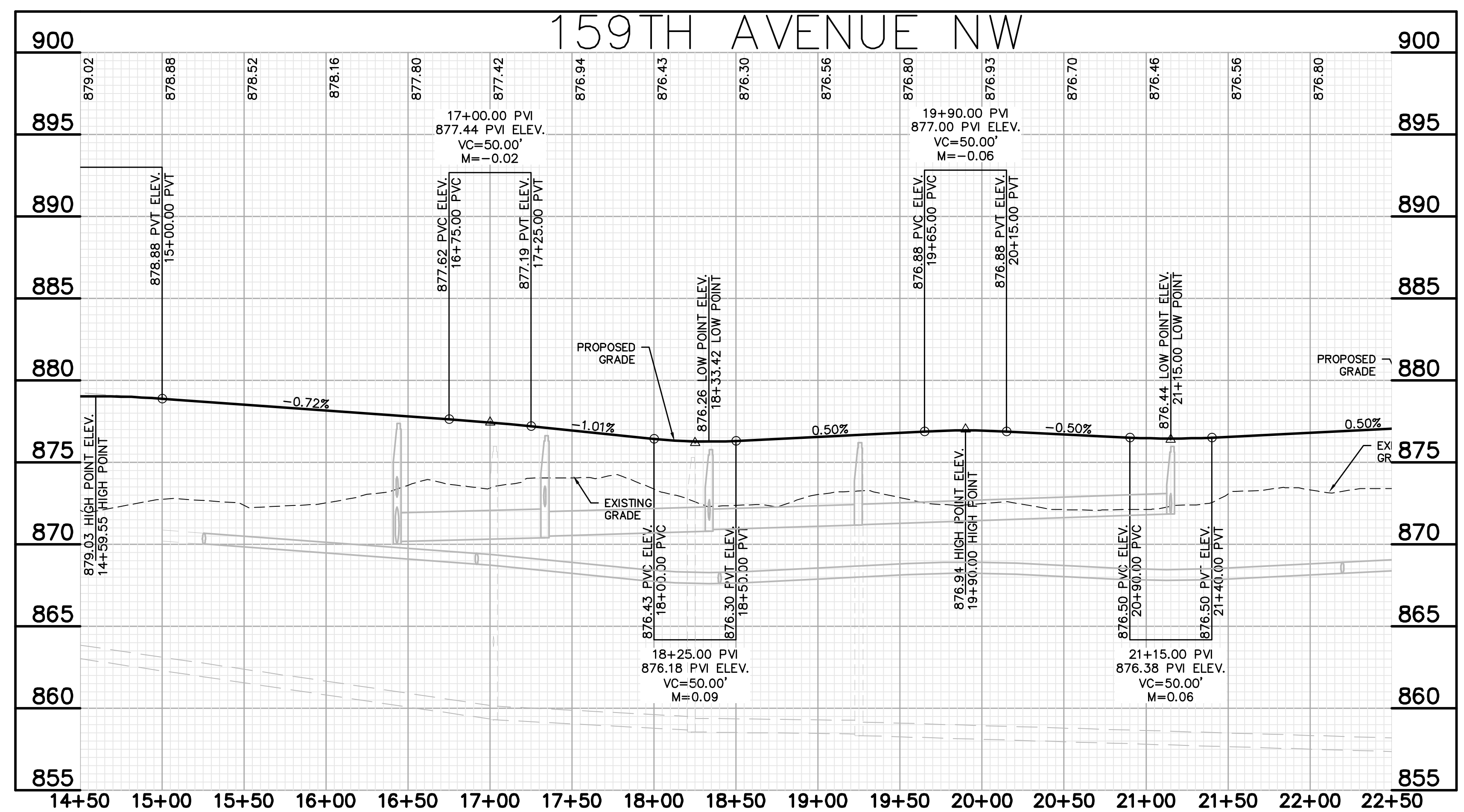
	EXISTING ASPHALT SURFACE
	EXISTING CONCRETE SURFACE
	EXISTING WETLAND AREA
	EXISTING CURB
	EXISTING SANITARY SEWER MANHOLE
	PROPOSED CURB
	PROPOSED STORM SEWER
	PROPOSED CONCRETE SURFACE
	PROPOSED ASPHALT SURFACE
	PROPOSED GATE VALVE

**James R. Hill, Inc.**  
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 2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337  
 PHONE: (952)890-6044 FAX: (952)890-6244

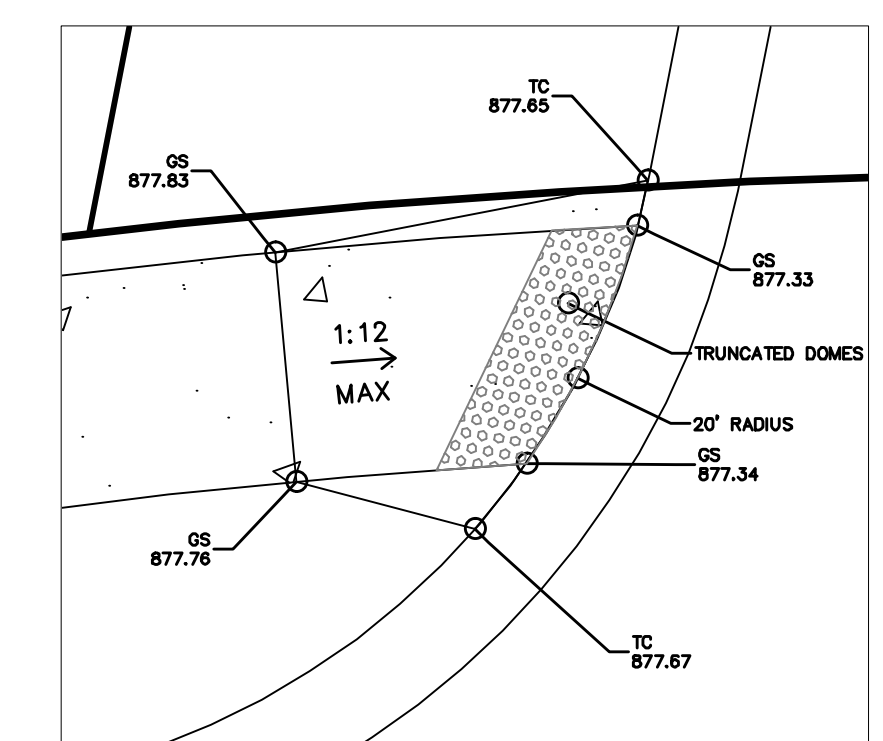
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 J. R. Hill, P.E.  
 Date: 02/16/2016 Reg. No. 18495

**THE WOODLANDS - 4th ADDITION**  
 RAMSEY, MINNESOTA  
**STREET CONSTRUCTION**  
**159TH AVENUE NW**  
 FOR  
**LENNAR**  
 16305 36TH AVE N., #600, PLUMCROFT, MN 55446

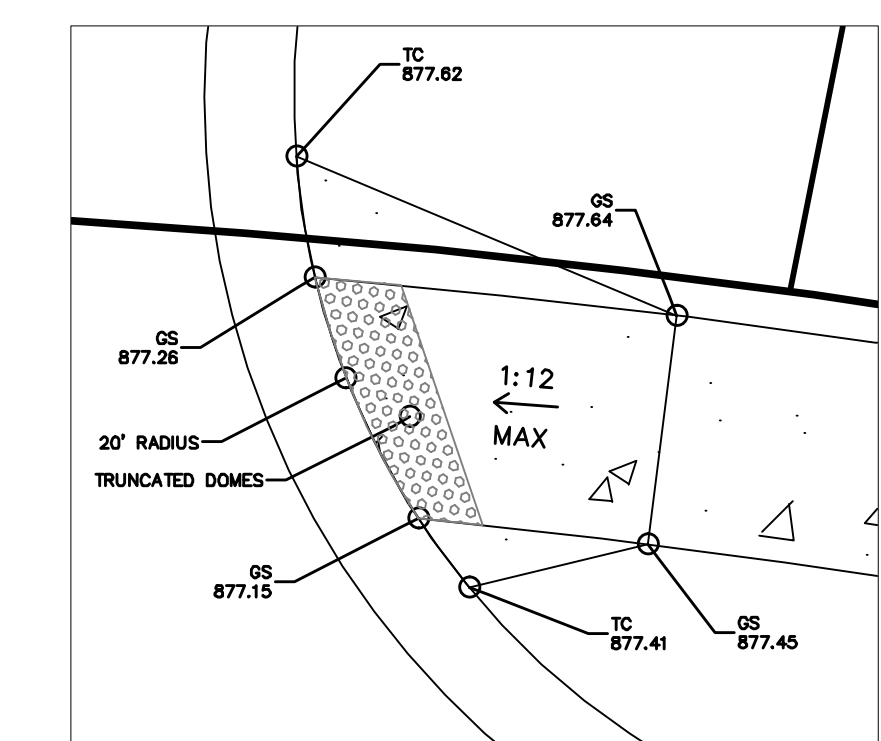
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DATE	03/03/2017
REVISIONS	
CAD FILE	23253-30STR
PROJECT NO.	23253-30
	6.10



PEDESTRIAN RAMP #1 (1"=5')

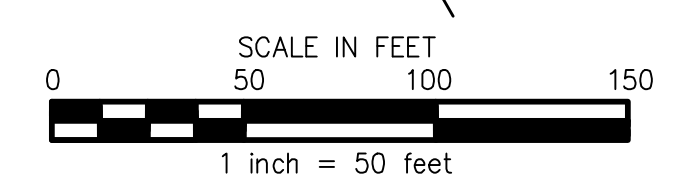


PEDESTRIAN RAMP #2 (1"=5')



**NOTES**

- ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
- B-618 CURB & GUTTER (TYP.) AT ALL INTERSECTION RADII AND CATCH BASINS UNLESS OTHERWISE NOTED.
- ALL TC ELEVATIONS TO BE TOP OF SURMOUNTABLE CURB & GUTTER.
- ALL INTERSECTION RADII TO BE A 20' RADIUS (TYP.) TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
- SOD MUST BE INSTALLED BEHIND ALL CONCRETE CURB & GUTTER/SIDEWALK, AND ALL AREA DISTURBED BY UTILITY & STREET CONSTRUCTION MUST BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF PRIVATE UTILITY (STE) CONSTRUCTION. SILT FENCE MAY BE INSTALLED IN LIEU OF SOD.
- INLET PROTECTION (WIMCO OR APPROVED EQUAL) MUST BE INSTALLED IN ALL STREET CATCH BASINS UPON COMPLETION OF STREET CONSTRUCTION (SEE DETAIL STR-21).



**BENCHMARK**

TNH LOT 1, BLOCK 2 (WOODLANDS 1ST ADD.)  
 TOP NUT HYDRANT ELEV=897.75  
 TNH LOTS 6&7, BLOCK 4 (WOODLANDS 1ST ADD.)  
 TOP NUT HYDRANT ELEV=885.00





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LENNAR ST. HILAIRE PROPERTY September 22, 2016

Table with columns: TREE TAG NUMBER, ELEVATION, TREE TYPE, DIAMETER, DIAMETER, SAVE, REMOVE, NO. OF SAVED TREES, NO. OF REMOVED TREES. Contains tree data for the first section.

LENNAR ST. HILAIRE PROPERTY September 22, 2016

Table with columns: TREE TAG NUMBER, ELEVATION, TREE TYPE, DIAMETER, DIAMETER, SAVE, REMOVE, NO. OF SAVED TREES, NO. OF REMOVED TREES. Contains tree data for the second section.

LENNAR ST. HILAIRE PROPERTY September 22, 2016

Table with columns: TREE TAG NUMBER, ELEVATION, TREE TYPE, DIAMETER, DIAMETER, SAVE, REMOVE, NO. OF SAVED TREES, NO. OF REMOVED TREES. Contains tree data for the third section.

LENNAR ST. HILAIRE PROPERTY September 22, 2016

Table with columns: TREE TAG NUMBER, ELEVATION, TREE TYPE, DIAMETER, DIAMETER, SAVE, REMOVE, NO. OF SAVED TREES, NO. OF REMOVED TREES. Contains tree data for the fourth section.

LENNAR ST. HILAIRE PROPERTY September 22, 2016

Table with columns: TREE TAG NUMBER, ELEVATION, TREE TYPE, DIAMETER, DIAMETER, SAVE, REMOVE, NO. OF SAVED TREES, NO. OF REMOVED TREES. Contains tree data for the fifth section.

James R. Hill, Inc. PLANNERS / ENGINEERS / SURVEYORS 2500 W. Ctr. Rd. 42, Suite 120, Burnsville, MN 55337 PHONE: (952)890-6044 FAX: (952)890-6244

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 Professional Engineer under the laws of the State of Minnesota. J. COOPER Date: 02/16/2016 Reg. No. 18495

THE WOODLANDS - 4th ADDITION RAMSEY, MINNESOTA PRELIMINARY TREE PRESERVATION PLAN FOR LENNAR 16305 36TH AVE. N., #600, PLYMOUTH, MN 55446

DRAWN BY CJK DATE 03/03/2017 REVISIONS CAD FILE 23253-30TP PROJECT NO. 23253-30 7.11

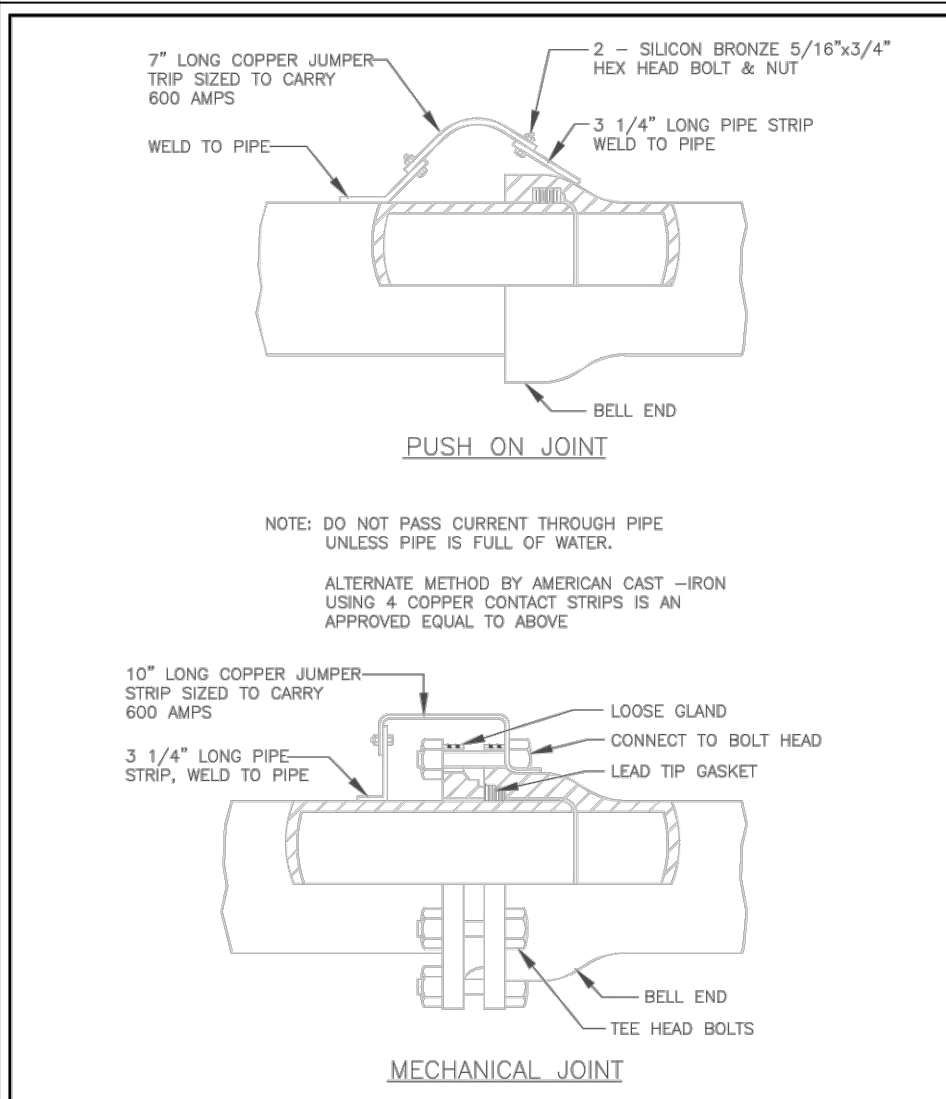
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TREE PRESERVATION									
TREE TAG NUMBER	ELEVATION	TREE TYPE	DIAMETER	DIAMETER	SAVE	REMOVE	NO. OF SAVED TREES	NO. OF REMOVED TREES	
1517	870.38	ASH	9		X		1	0	
1518	870.25	OAK	5		X		1	0	
1519	870.55	OAK	4		X		1	0	
1520	870.52	ASH	8		X		1	0	
1521	870.21	OAK	7		X		1	0	
1522	870.36	OAK	5	4	X		1	0	
1523	869.77	OAK	8		X		1	0	
1524	869.96	OAK	11		X		1	0	
1525	869.93	OAK	10		X		1	0	
1526	871.83	ASH	10		X		1	0	
1527	871.30	ASH	9		X		1	0	
1528	871.67	ASH	8		X		1	0	
1529	871.10	OAK	6		X		1	0	
1530	870.25	OAK	7		X		1	0	
1531	870.50	OAK	7		X		1	0	
1532	870.05	ASH	10		X		1	0	
1533	870.02	OAK	6		X		1	0	
1534	869.42	OAK	4		X		1	0	
1535	869.51	OAK	7		X		1	0	
1536	869.87	ASH	12			X	0	1	
1537	870.56	ASH	14			X	0	1	
1538	871.23	OAK	4			X	0	1	
1539	871.49	ASH	13			X	0	1	
1540	871.63	ASH	8			X	0	1	
1541	871.63	ASH	10			X	0	1	
1542	871.44	ASH	9			X	0	1	
1543	871.85	ASH	10			X	0	1	
1544	871.46	OAK	5			X	0	1	
1545	871.87	OAK	9			X	0	1	
1546	872.12	OAK	5			X	0	1	
1547	872.29	OAK	5			X	0	1	
1548	871.75	OAK	6			X	0	1	
1549	871.50	OAK	12			X	0	1	
1550	871.64	ASH	10			X	0	1	
1551	871.51	OAK	6			X	0	1	
1552	871.46	OAK	4		X		1	0	
1553	871.74	ASH	8		X		1	0	
1554	871.72	OAK	7		X		1	0	
1555	871.93	OAK	6			X	0	1	
1556	872.22	ASH	14			X	0	1	
1557	871.87	ASH	12			X	0	1	
1558	872.25	ASH	9			X	0	1	
1559	872.16	OAK	7			X	0	1	
1560	871.77	OAK	4			X	0	1	
1561	870.66	OAK	4			X	0	1	
1562	870.47	ASH	12			X	0	1	
1563	870.77	OAK	6			X	0	1	
1564	870.42	ASH	9		X		1	0	
1565	870.28	ASH	10		X		1	0	
1566	871.07	ASH	8			X	0	1	
1567	870.78	OAK	5			X	0	1	
1568	870.37	OAK	7		X		1	0	
1569	870.33	OAK	4		X		1	0	
1570	870.34	ASH	10		X		1	0	
1571	870.62	OAK	4		X		1	0	
1572	870.29	ASH	12		X		1	0	
1573	870.70	OAK	10		X		1	0	
1574	871.06	OAK	5			X	0	1	
1575	871.48	ASH	9			X	0	1	
1576	871.82	OAK	6			X	0	1	
1577	871.94	OAK	5			X	0	1	
1578	871.75	ASH	8			X	0	1	
1579	872.02	OAK	5			X	0	1	
1580	872.54	OAK	6			X	0	1	
1581	872.35	ASH	8			X	0	1	
1582	871.45	OAK	9			X	0	1	
1583	871.74	OAK	8			X	0	1	
1584	871.81	OAK	7			X	0	1	
1585	873.55	OAK	7			X	0	1	
1586	872.46	OAK	9			X	0	1	
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1588	872.40	OAK	6			X	0	1	
1589	871.94	ASH	9			X	0	1	
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1592	872.28	ASH	11			X	0	1	
1593	873.79	OAK	5			X	0	1	
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1595	873.84	OAK	4			X	0	1	
1596	873.56	OAK	5			X	0	1	
1597	873.57	OAK	7			X	0	1	
1598	873.40	OAK	4			X	0	1	
1599	872.97	OAK	8			X	0	1	
1600	873.12	ASH	8			X	0	1	
1601	872.93	OAK	7			X	0	1	
1602	872.93	ASH	8			X	0	1	
1603	873.03	OAK	7			X	0	1	
1604	872.86	OAK	10			X	0	1	
1605	873.07	OAK	4			X	0	1	
1606	873.18	ASH	9			X	0	1	
1607	872.16	OAK	6			X	0	1	
1608	872.28	OAK	5			X	0	1	
1609	871.73	OAK	4			X	0	1	
1610	871.96	ASH	9			X	0	1	
1611	872.21	ASH	5			X	0	1	
1612	872.55	ASH	11			X	0	1	
1613	872.22	OAK	6			X	0	1	
1614	872.28	OAK	6			X	0	1	
1615	872.54	OAK	6			X	0	1	
1616	872.27	OAK	5			X	0	1	
1617	872.38	OAK	4			X	0	1	
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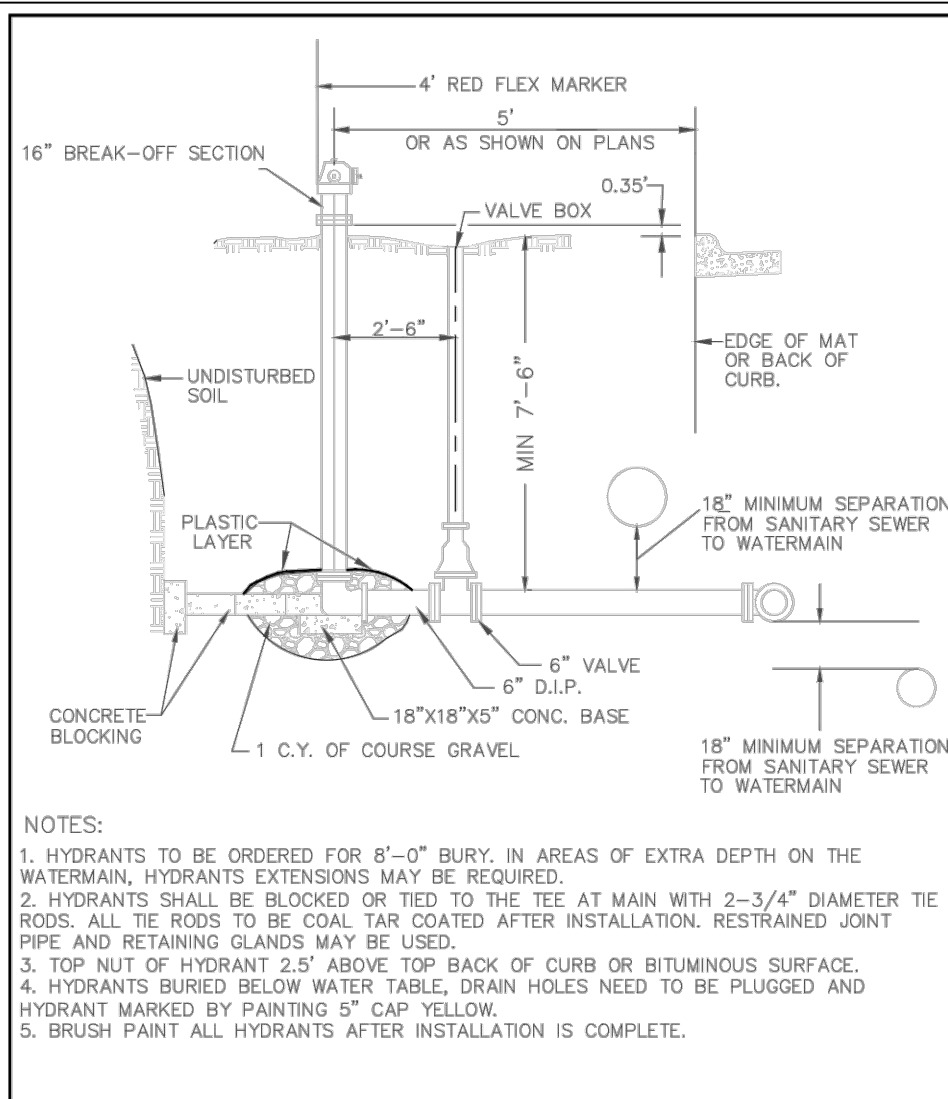
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1621	872.95	ASH	8			X	0	1	
1622	872.73	ASH	9			X	0	1	
1623	872.93	OAK	8			X	0	1	
1624	873.27	OAK	6			X	0	1	
1625	873.04	OAK	6			X	0	1	
1626	873.10	ASH	8			X	0	1	
1627	872.88	OAK	4			X	0	1	
1628	871.68	OAK	4			X	0	1	
1629	872.85	OAK	4			X	0	1	
1630	872.99	OAK	12			X	0	1	
1631	872.86	OAK	4			X	0	1	
1632	872.54	OAK	8			X	0	1	
1633	872.30	ASH	10			X	0	1	
1634	873.01	OAK	5			X	0	1	
1635	872.36	OAK	7			X	0	1	
1636	872.49	OAK	6			X	0	1	
1637	871.58	OAK	4			X	0	1	
1638	871.47	OAK	7			X	0	1	
1639	871.52	OAK	7			X	0	1	
1640	871.78	OAK	8			X	0	1	
1641	871.62	OAK	6			X	0	1	
1642	871.53	OAK	6			X	0	1	
1643	871.69	OAK	5			X	0	1	
1644	871.86	OAK	4			X	0	1	
1645	871.63	OAK	4			X	0	1	
1646	871.81	OAK	4			X	0	1	
1647	871.97	ASH	11			X	0	1	
1648	871.92	OAK	5			X	0	1	
1649	871.76	OAK	4			X	0	1	
1650	871.78	OAK	5			X	0	1	
1651	871.95	ASH	8			X	0	1	
1652	871.78	ASH	11			X	0	1	
1653	872.08	OAK	5			X	0	1	
1654	871.84	OAK	8			X	0	1	
1655	872.01	OAK	6			X	0	1	
1656	871.96	OAK	8			X	0	1	
1657	872.11	OAK	6			X	0	1	
1658	872.27	OAK	4			X	0	1	
1659	872.70	OAK	4			X	0	1	
1660	871.97	ASH	10			X	0	1	
1661	872.33	ASH	8			X	0	1	
1662	872.24	OAK	4			X	0	1	
1663	872.36	ASH	10			X	0	1	
1664	872.11	OAK	8			X	0	1	
1665	872.41	OAK	5			X	0	1	
1666	872.41	OAK	5			X	0	1	
1667	872.33	OAK	5			X	0	1	
1668	872.51	OAK	5			X	0	1	
1669	872.38	ASH	10			X	0	1	
1670	872.45	ASH	19			X	0	1	
1671	872.92	OAK	4			X	0	1	
1672	872.83	OAK	6			X	0	1	
1673	872.77	ASH	10			X	0	1	
1674	872.62	ASH	9			X	0	1	
1675	872.29	ASH	10			X	0	1	
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1677	872.21	OAK	4			X	0	1	
1678	872.05	OAK	7			X	0	1	
1679	872.11	OAK	7			X	0	1	
1680	872.09	OAK	6			X	0	1	
1681	872.35	ASH	9			X	0	1	
1682	872.35	ASH	11			X	0	1	
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1685	871.86	OAK	4			X	0	1	
1686	872.23	OAK	5			X	0	1	
1687	873.15	OAK	7			X	0	1	
1688	872.85	ASH	8			X	0	1	
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1690	872.65	OAK	4			X	0	1	
1691	872.49	OAK	9			X	0	1	
1692	872.30	OAK	6			X	0	1	
1693	871.81	OAK	7			X	0	1	
1694	872.26	OAK	5			X	0	1	
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1696	872.17	ASH	9			X	0	1	
1697	872.07	ASH	8			X			



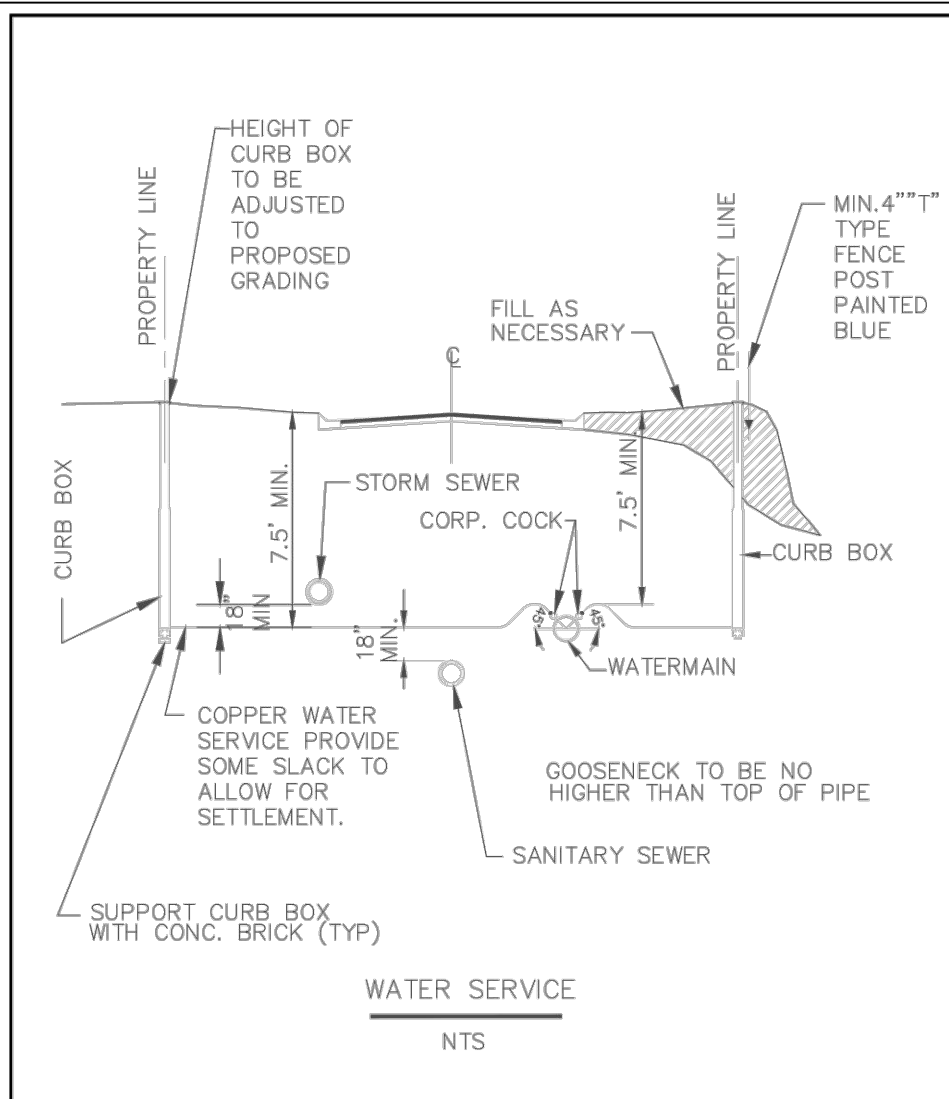
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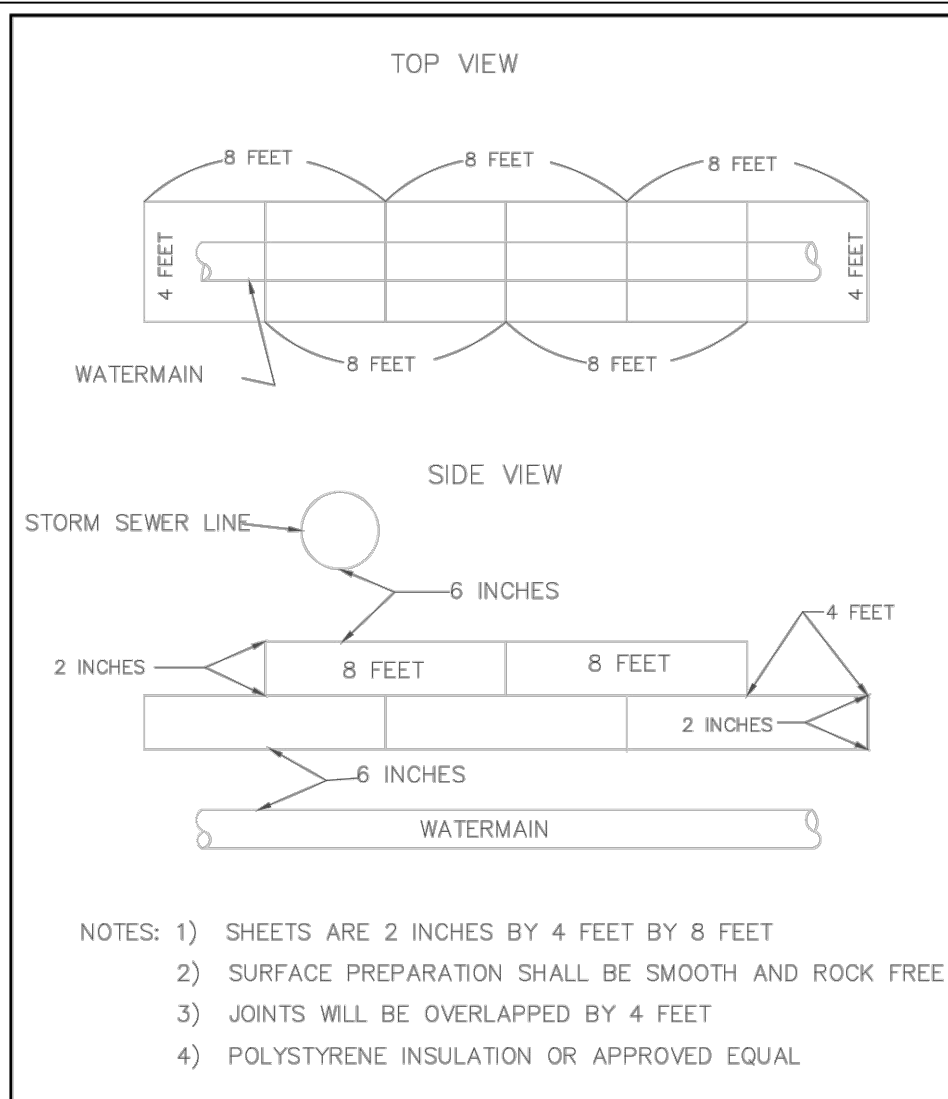
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**City of RAMSEY**  
 STANDARD DETAILS: JOINT CONNECTION  
 CITY PLATE No. WAT-1



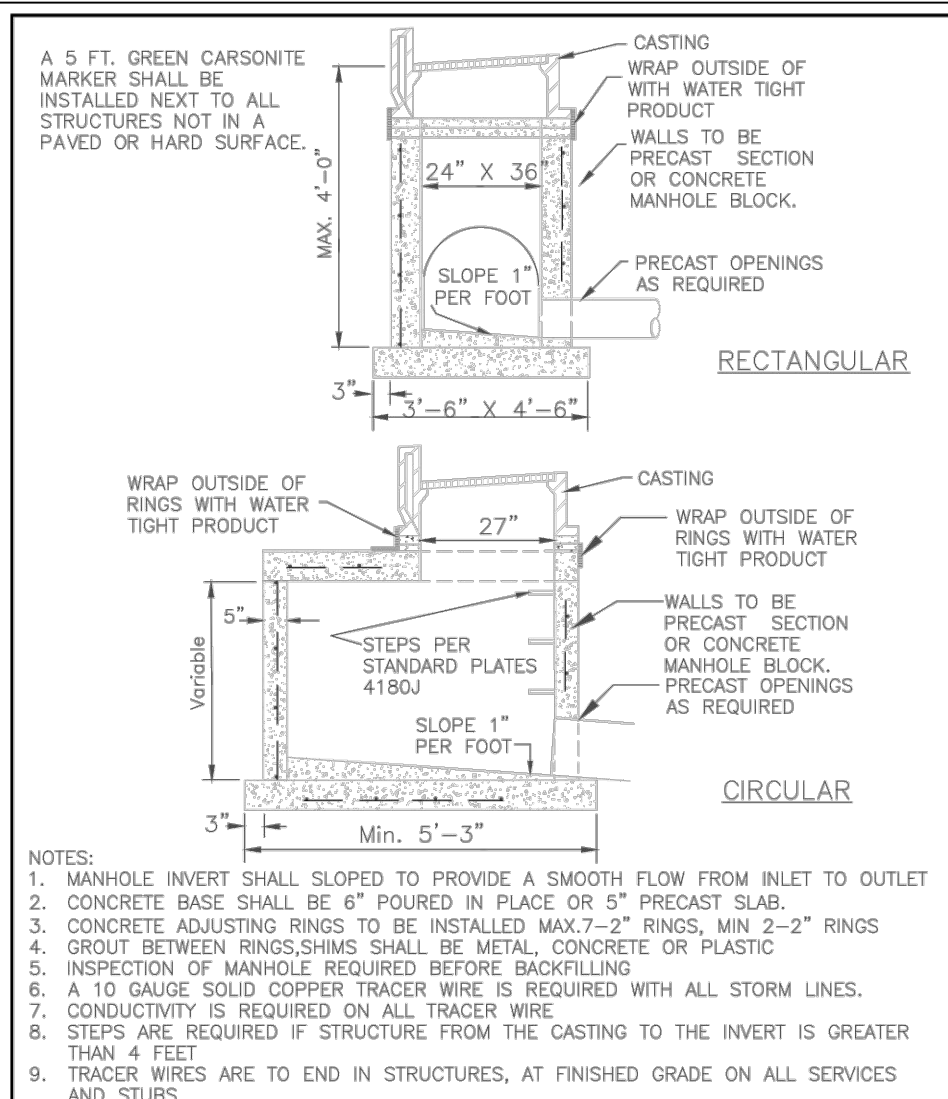
APPROVED: 4 - 2005  
**City of RAMSEY**  
 STANDARD DETAILS: HYDRANT  
 CITY PLATE No. WAT-3



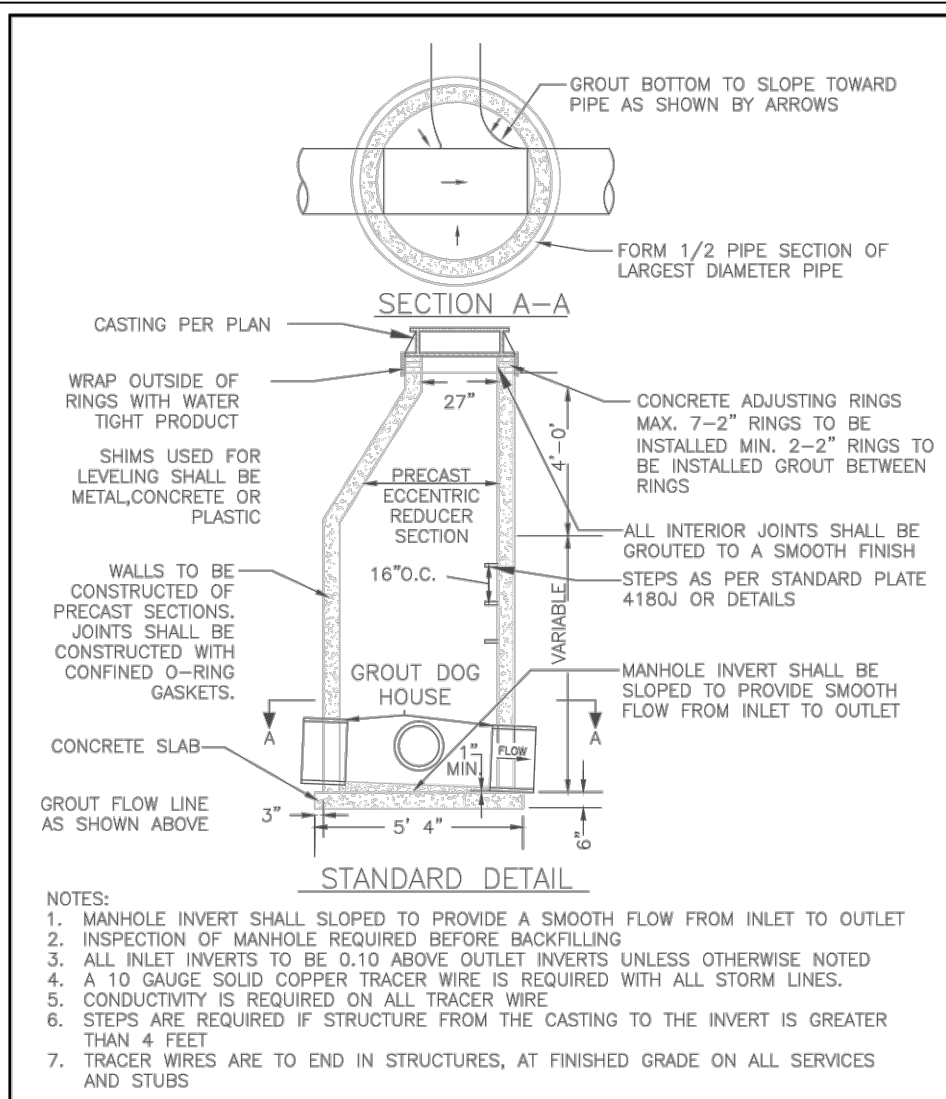
APPROVED: 7 - 1993  
**City of RAMSEY**  
 STANDARD DETAILS: WATER SERVICE  
 CITY PLATE No. WAT-4



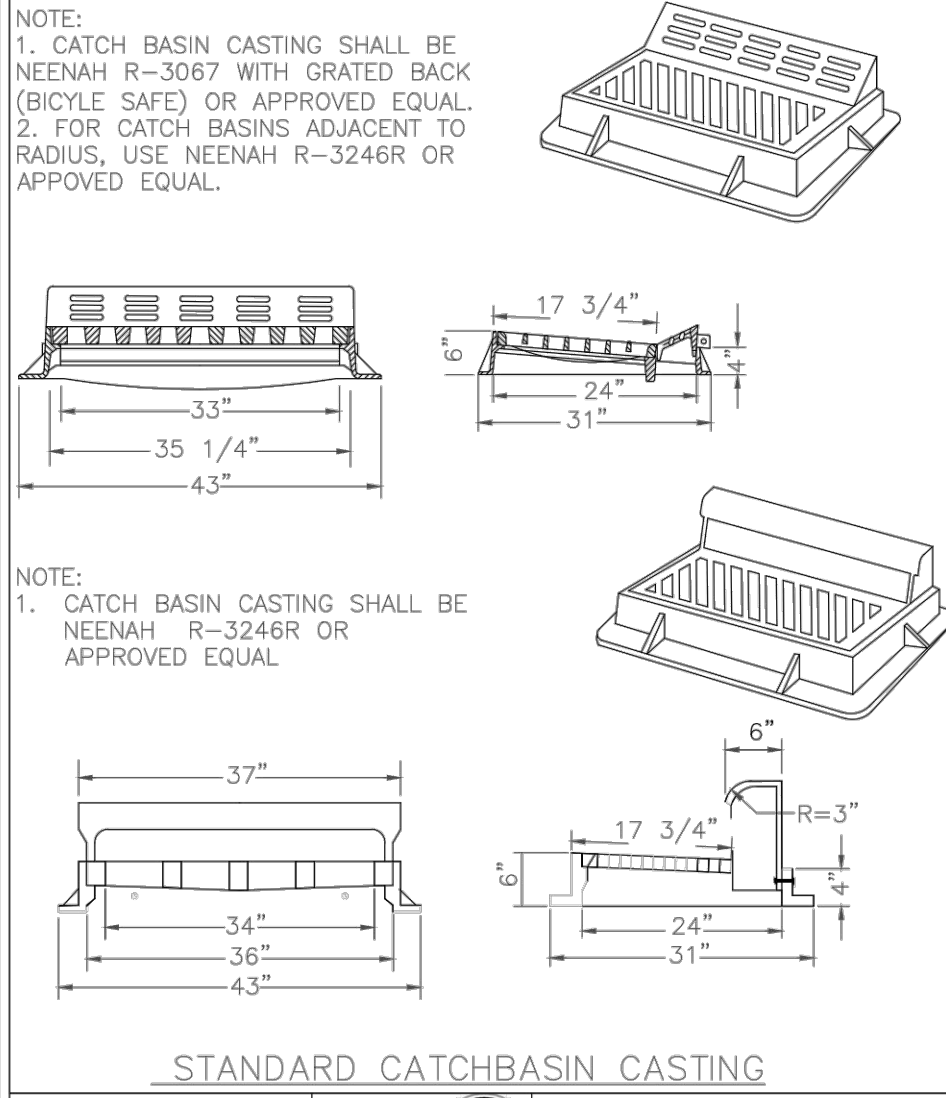
APPROVED: 4 - 2004  
**City of RAMSEY**  
 STANDARD DETAILS: UTILITY INSULATION  
 CITY PLATE No. WAT-5



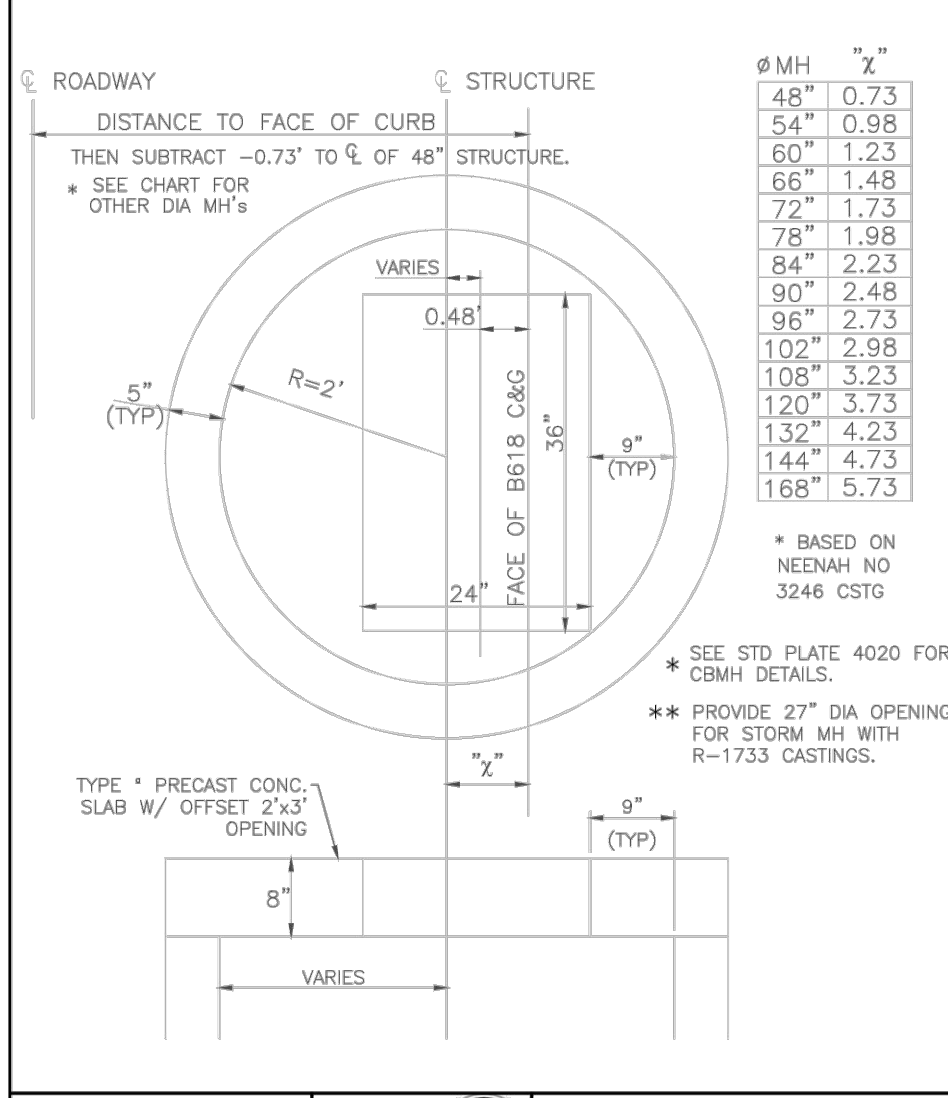
APPROVED: 4 - 2007  
**City of RAMSEY**  
 STANDARD DETAILS: CATCH BASIN  
 CITY PLATE No. STO-1



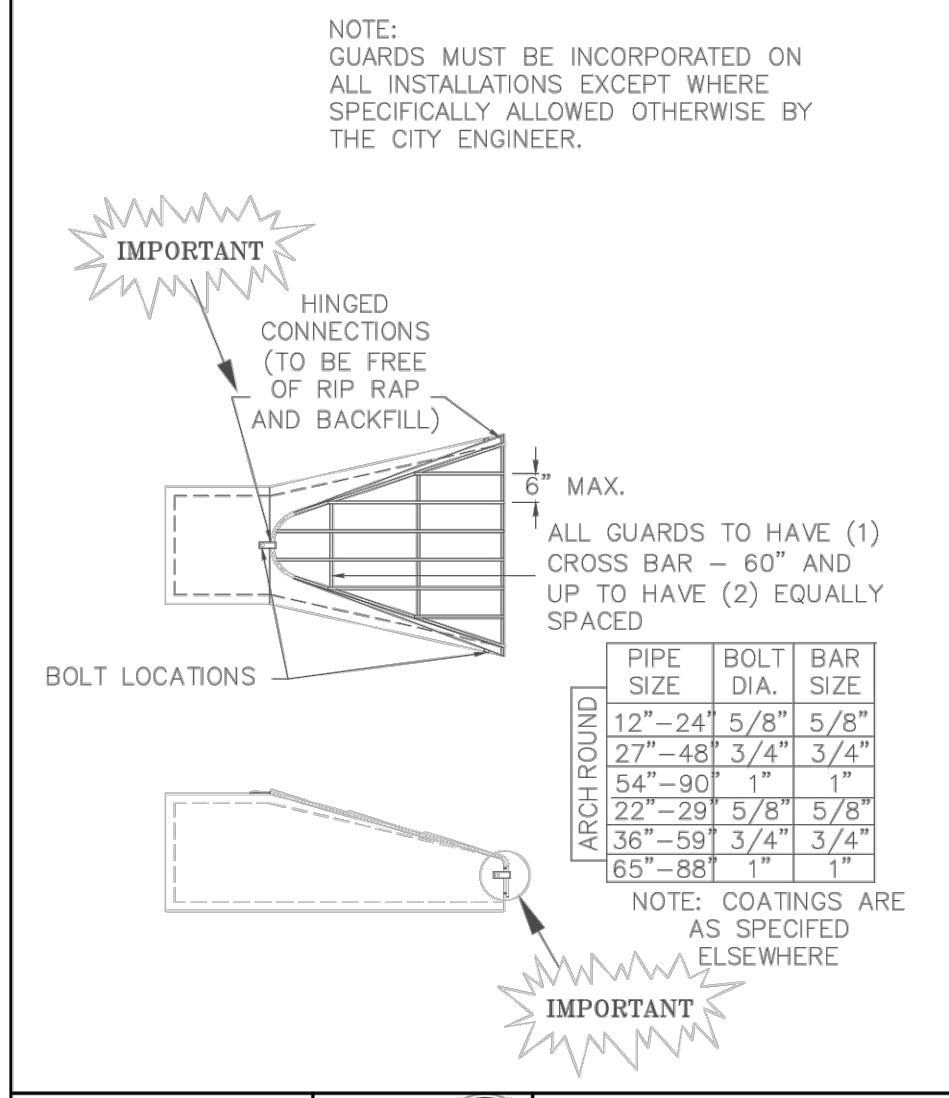
APPROVED: 1 - 2006  
**City of RAMSEY**  
 STANDARD DETAILS: STORM MANHOLE  
 CITY PLATE No. STO-3



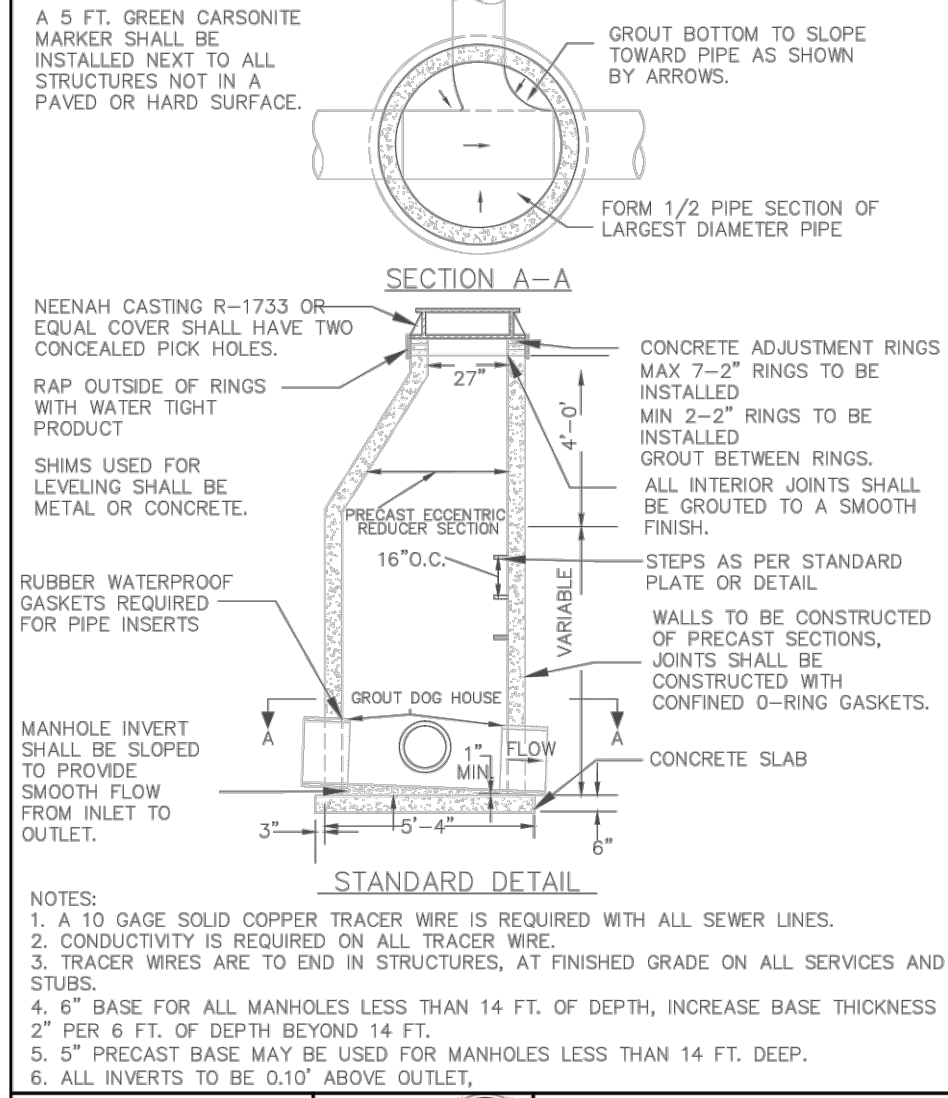
APPROVED: 6 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: STORMWATER CASTING  
 CITY PLATE No. STD-4



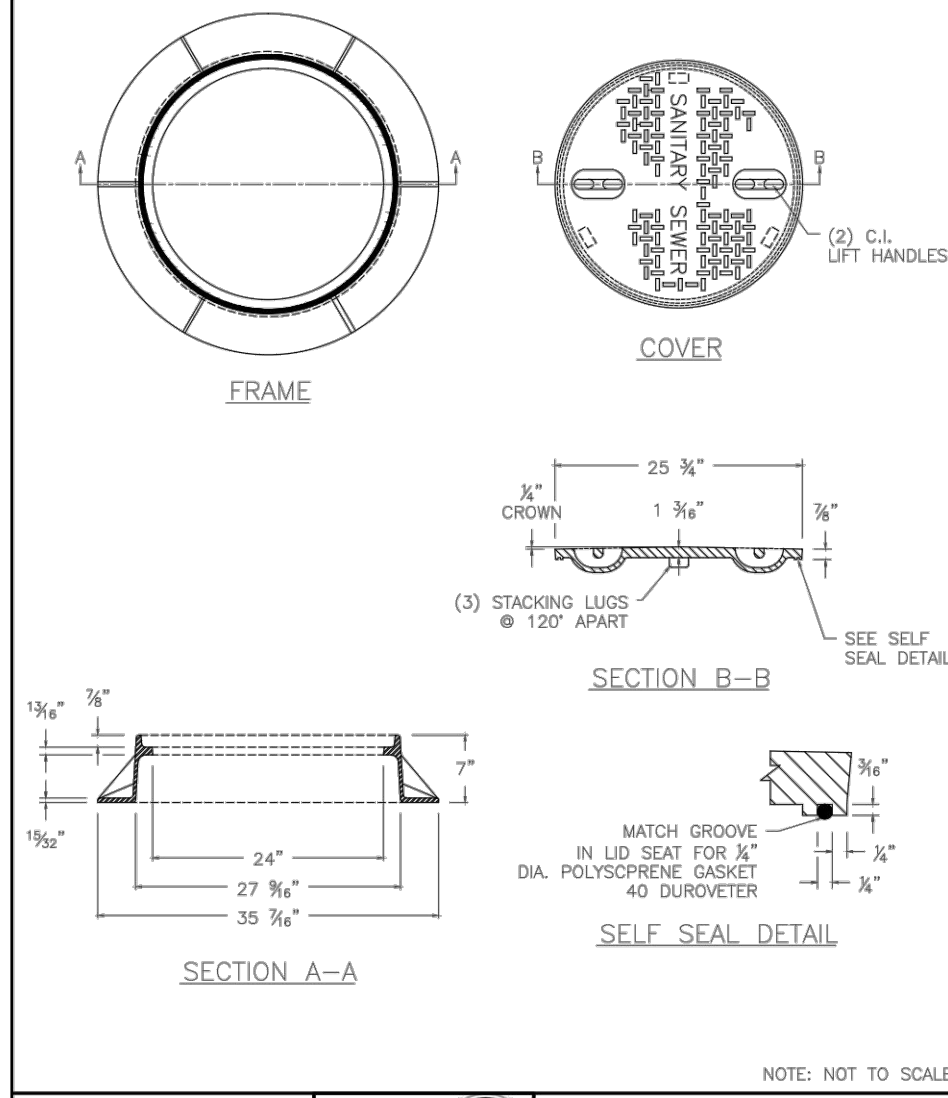
APPROVED: 4 - 2005  
**City of RAMSEY**  
 STANDARD DETAILS: SLAB TOP MANHOLE COVER  
 CITY PLATE No. STO-5



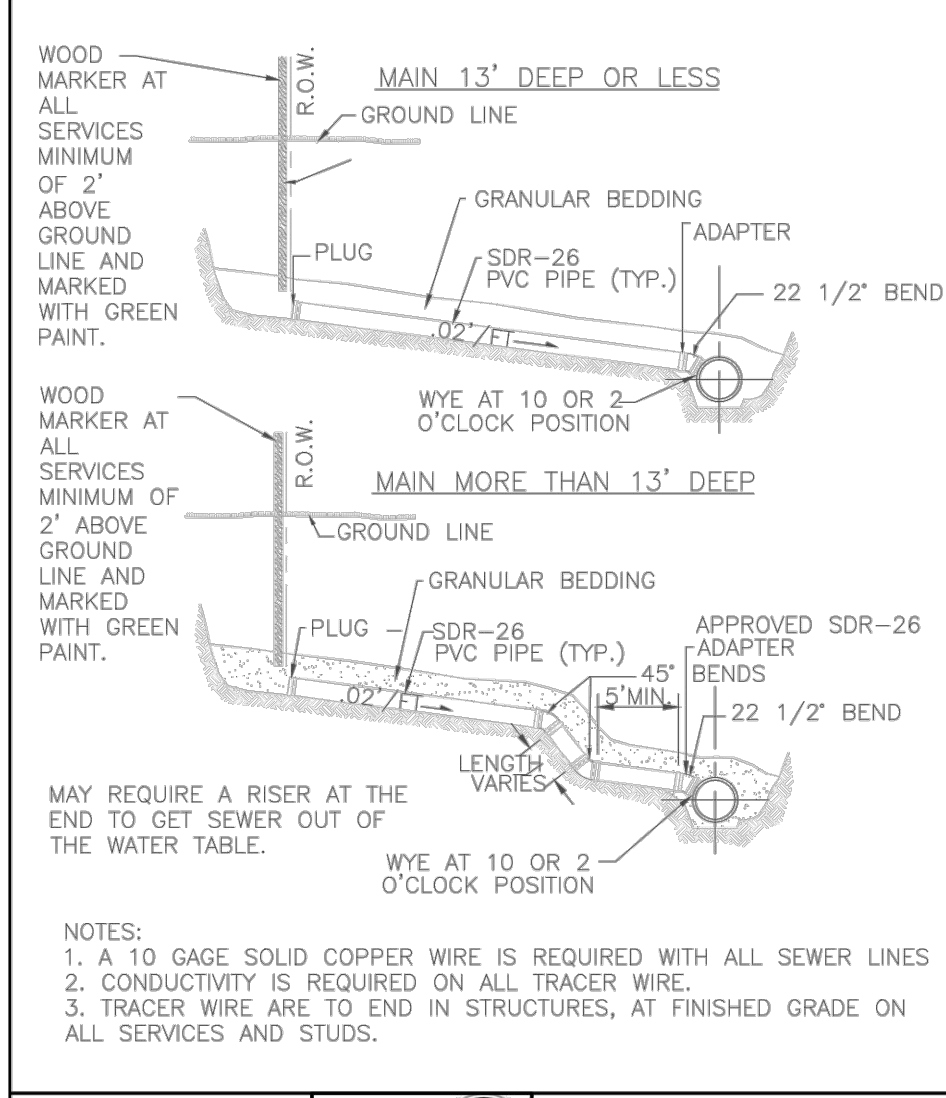
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**City of RAMSEY**  
 STANDARD DETAILS: TRASH GUARD  
 CITY PLATE No. STO-8



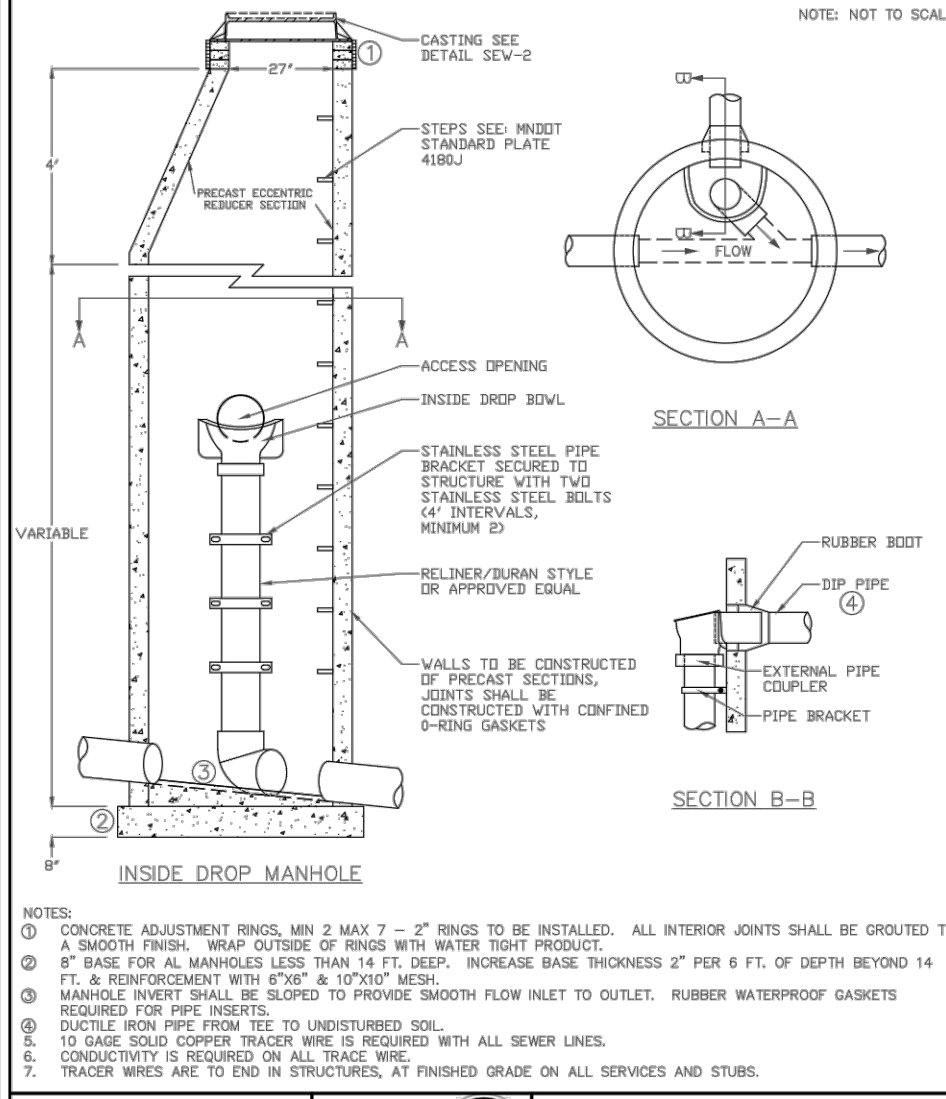
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**City of RAMSEY**  
 STANDARD DETAILS: SANITARY MANHOLE  
 CITY PLATE No. SEW-1



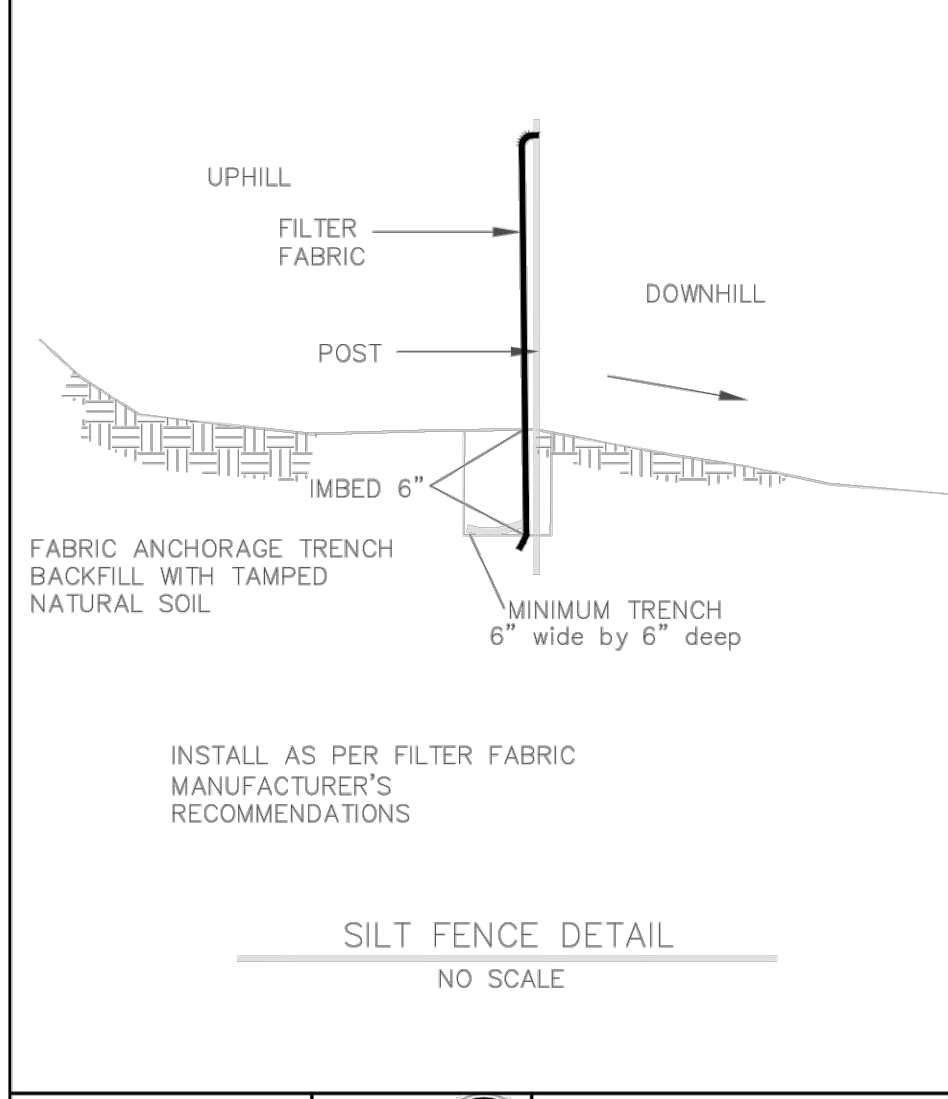
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**City of RAMSEY**  
 STANDARD DETAILS: WATER TIGHT CASTING  
 CITY PLATE No. SEW-2



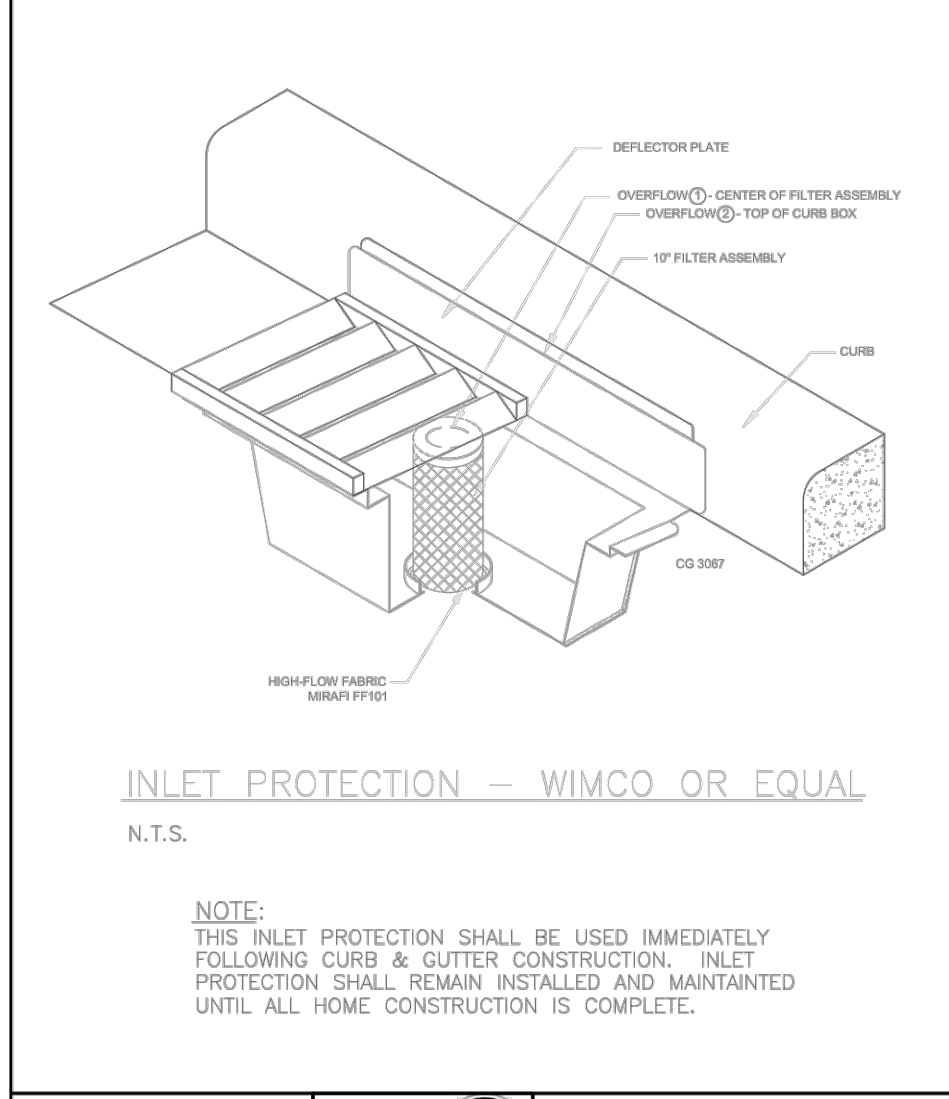
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**City of RAMSEY**  
 STANDARD DETAILS: SANITARY SEWER SERVICE  
 CITY PLATE No. SEW-3



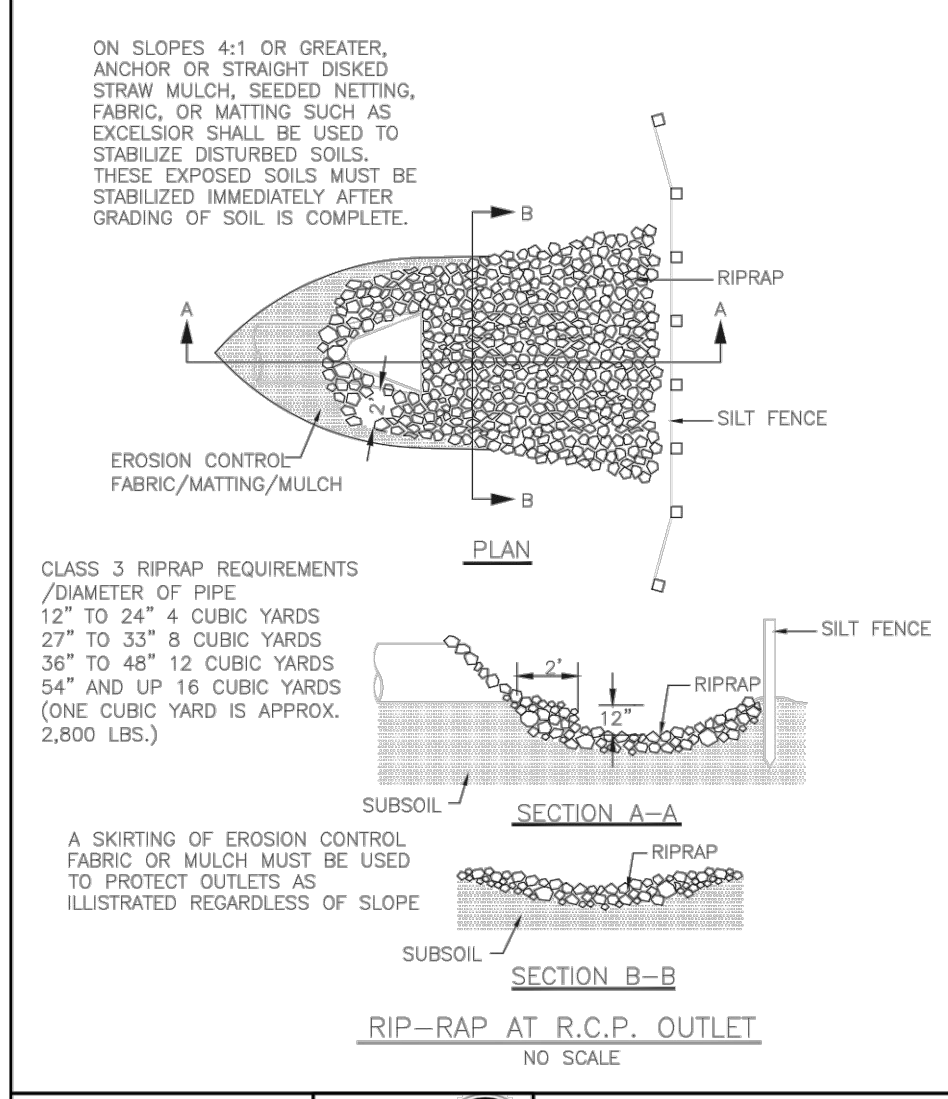
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: INSIDE DROP MANHOLE  
 CITY PLATE No. SEW-5



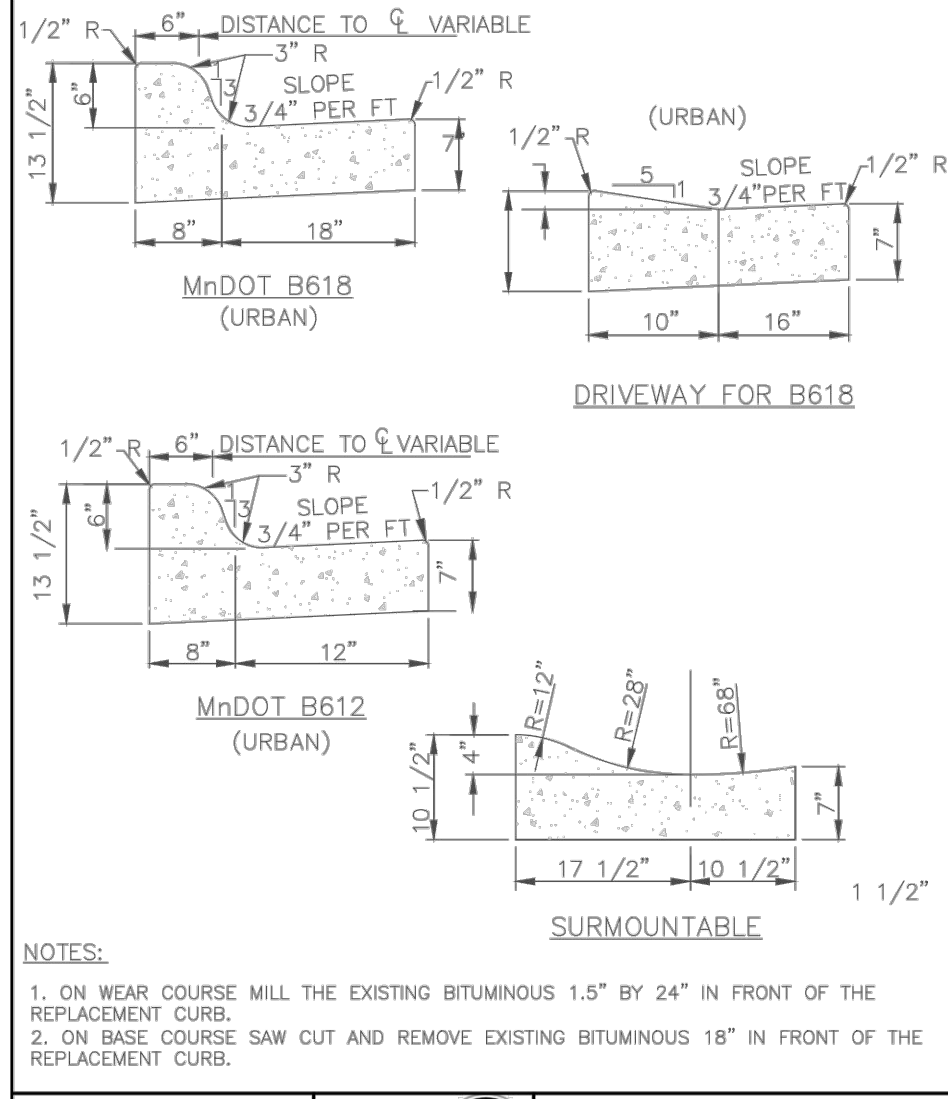
APPROVED: 1 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: SILT FENCE  
 CITY PLATE No. ERO-1



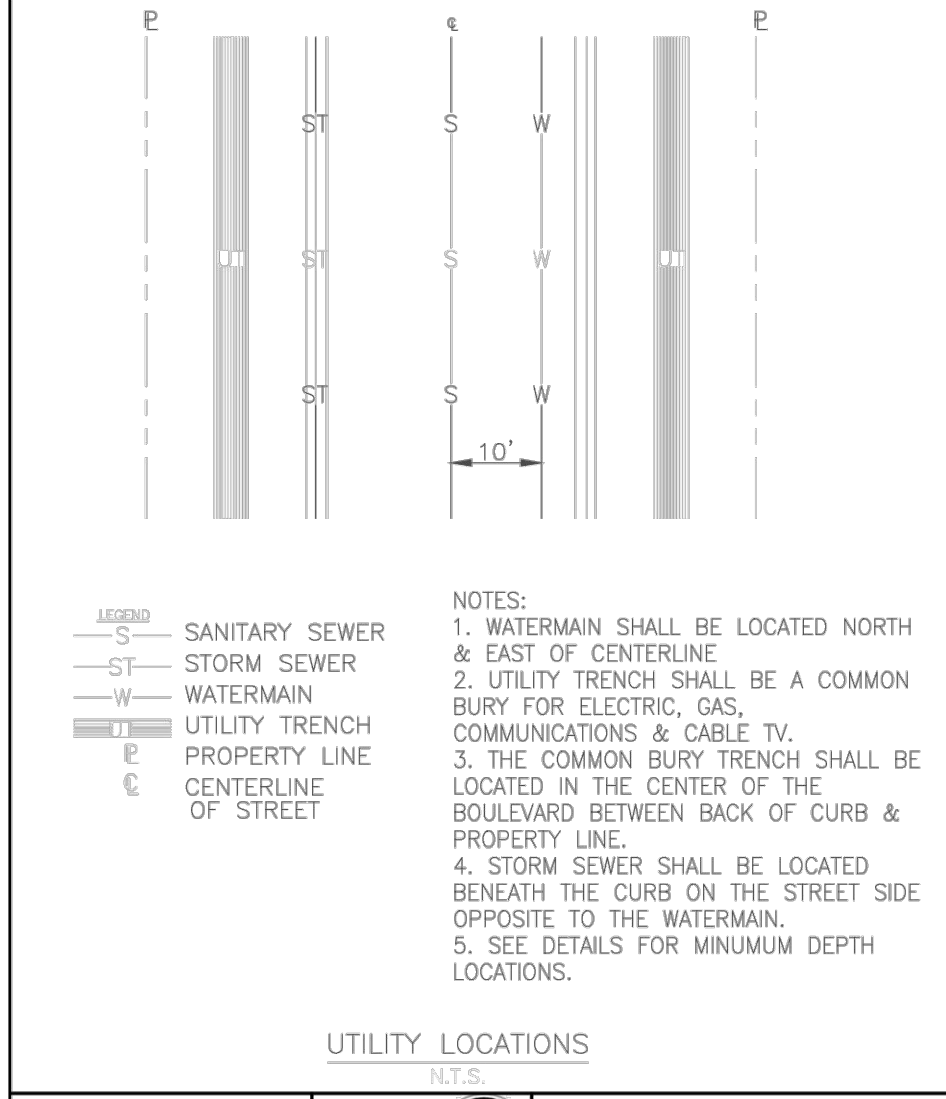
APPROVED: 1 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: INLET PROTECTION  
 CITY PLATE No. ERO-2



APPROVED: 1 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: RIP-RAP  
 CITY PLATE No. ERO-3



APPROVED: 1 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: CURB AND GUTTER  
 CITY PLATE No. STR-1



APPROVED: 7 - 1996  
**City of RAMSEY**  
 STANDARD DETAILS: UTILITY LOCATIONS  
 CITY PLATE No. UTL-1

**James R. Hill, Inc.**  
 PLANNERS / ENGINEERS / SURVEYORS  
 2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337  
 PHONE: (952)890-6044 FAX: (952)890-6244

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 Professional Engineer under the laws of the State of Minnesota.  
**J. COOPER**  
 Date: 10/7/16 Reg. No. 18495

**HILAIRE PROPERTY**  
 RAMSEY, MINNESOTA  
 DETAILS FOR  
**LENNAR**  
 16305 36TH AVE N, #600, PLYMOUTH, MN 55446

**ST.**

DRAWN BY CJK  
 DATE 10/7/16  
 REVISIONS

CAD FILE 23253-30D  
 PROJECT NO. 23253-30  
 8.10

**GENERAL GRADING NOTES:**

- SPECIFICATIONS WHICH APPLY ARE THE MOST RECENT EDITIONS OF THE CITY OF RAMSEY AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION UNLESS MODIFIED HEREIN ON THESE CONTRACT DOCUMENTS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UTILIZE THE "GOPHER STATE ONE CALL" EXCAVATION NOTICE SYSTEM AS REQUIRED UNDER MINNESOTA STATUTE CHAPTER 216D, 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION (PHONE 651-454-0002 IN THE TWIN CITIES METRO AREA OR TOLL FREE 1-800-252-1166).
- GRADING CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION AS CALLED FOR ON THESE CONTRACT DOCUMENTS SHALL BE PERFORMED IN ACCORDANCE WITH ALL OSHA REQUIREMENTS.
- ALL LOT AND EASEMENT DIMENSIONS ARE SUBJECT TO FINAL PLAT.
- IT IS THE RESPONSIBILITY OF THE GRADING CONTRACTOR TO DISPOSE OFF-SITE ALL TREES, STUMPS, BRUSH, OR OTHER DEBRIS THAT EXISTS WITHIN THE CONSTRUCTION AREAS. TREES TO REMAIN SHALL BE DESIGNATED BY THE ENGINEER.
- THE GRADING CONTRACTOR SHALL SCHEDULE THE SOILS ENGINEER SO THAT CERTIFICATION OF ALL CONTROLLED FILLS CAN BE FURNISHED TO THE OWNER DURING AND UPON COMPLETION OF THE PROJECT.
- DENSITY TESTS SHALL BE TAKEN TO EVALUATE THE COMPACTION WITHIN THE STREETS, TRAVEL WAYS OR PARKING LOTS. WITHIN THE UPPER 3 FEET OF STREET, TRAVEL WAYS OR PARKING LOT SUBGRADE, THE CONTRACTOR SHALL INSURE THAT ALL SOILS BE NOT MORE THAN ONE PERCENTAGE POINT OVER THE SOIL'S STANDARD PROCTOR OPTIMUM MOISTURE CONTENT, AND THAT COMPACTION TO A MINIMUM OF 100% OF STANDARD PROCTOR DENSITY BE PROVIDED. IN AREAS BELOW THE UPPER THREE FEET OF SUBGRADE OF THE STREETS, TRAVEL WAYS OR PARKING LOTS, THE CONTRACTOR SHALL INSURE THAT ALL SOILS BE NOT MORE THAN THREE PERCENTAGE POINTS OVER THE SOIL'S STANDARD PROCTOR OPTIMUM MOISTURE CONTENT, AND THAT COMPACTION TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY BE PROVIDED. THE GRADING TOLERANCE FOR THESE AREAS SHALL BE WITHIN 0.1'±.
- LOT GRADING AND/OR THE PREPARATION OF BUILDING PADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE GRADING TOLERANCE SHALL BE 0.3'±. ALL EARTHWORK OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE HUD-FHA DATA SHEET 796 "LAND DEVELOPMENT WITH CONTROLLED EARTHWORK", PROVIDING FOR A MINIMUM OF 95% STANDARD DENSITY, OR AS OTHERWISE SPECIFIED BY THE GEO-TECHNICAL ENGINEER.
- IN AREAS WHERE RETAINING WALLS ARE PROPOSED ON CONTROLLED FILL AREAS, A MINIMUM 95% STANDARD DENSITY NEEDS TO BE ATTAINED WHERE FILL THICKNESSES EXCEED 10' BELOW WALL FOUNDATION ELEVATIONS, A HIGHER MINIMUM OF 98% SHALL BE ATTAINED.
- BUILDING PADS SHOWN ON EACH LOT ARE TYPICAL ONLY. THE DEPTH OF THE PAD FROM FRONT TO BACK SHALL BE GRADED THROUGHOUT THE FULL WIDTH OF THE LOT OR AS NECESSARY TO ALLOW FOR CONSTRUCTION OF A BUILDING AT THE MINIMUM SIDE YARD SETBACKS. (REFER TO THE PLANS FOR SPECIFIC SETBACK DISTANCES.) IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED WITHIN A PROPOSED BUILDING PAD THAT CANNOT BE CORRECTED OR REMOVED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF THE CONDITIONS AND TO LOCATE THE LIMITS OF THE UNSUITABLE AREAS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP PUBLIC STREETS, TRAVEL WAYS, PARKING LOTS AND TRAILS UTILIZED FOR INGRESS TO AND EGRESS FROM THE CONSTRUCTION SITE FREE OF DIRT AND OTHER DEBRIS WHICH RESULTS FROM SAID GRADING CONSTRUCTION. AFTER THE STREET SURFACING THAT IS A PART OF THE STAGE I IMPROVEMENTS IS INSTALLED, THE PERMITTEE SHALL CLEAR ANY SOIL, EARTH, OR DEBRIS FROM THE STREETS RESULTING FROM THE CONSTRUCTION OF THE STAGE I IMPROVEMENTS. IF AFTER A MINIMUM OF TWENTY-FOUR (24) HOURS' NOTICE FROM THE CITY, PERMITTEE HAS NOT CLEARED ANY SOIL, EARTH, OR DEBRIS FROM THE STREETS RESULTING FROM THE CONSTRUCTION OF THE STAGE I IMPROVEMENTS, THE CITY MAY REMOVE SUCH ACCUMULATIONS OF SOIL, EARTH, AND DEBRIS FROM THE STREETS.
- THE SITE GRADING TOLERANCE FOR THE SITE SHOULD BE 0.1' FOR STREETS AND 0.3' FOR LANDSCAPED/OPEN AREAS.

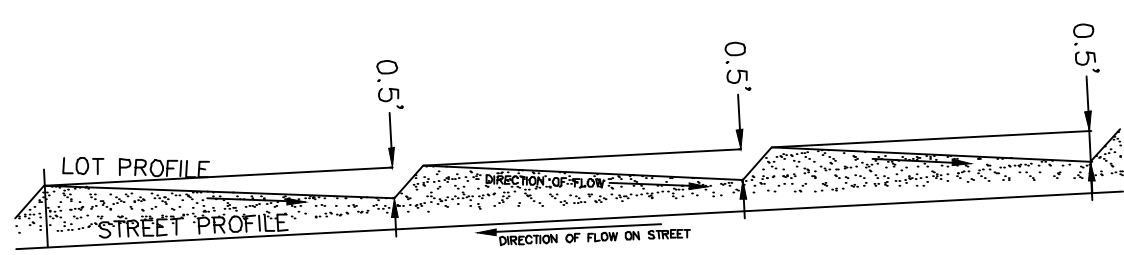
**SPECIFIC GRADING NOTES:**

- THE EXISTING TOPOGRAPHY AND CONTOUR ELEVATIONS ON THE PLANS WERE PROVIDED BY JAMES R. HILL, INC. ON OR ABOUT 9/21/16. THE DEGREE OF ACCURACY OF THE EXISTING CONTOURS SHOWN ON THE PLAN IS EQUAL TO ± ONE HALF THE CONTOUR INTERVAL.
- STREETS MUST BE CLEANED WITHIN 3 HOURS OF NOTIFICATION FROM THE CITY.

**RECOMMENDED HOUSE TYPES**

**RWO** WALKOUT LOT - FINISHED GROUND ELEVATION FOR REAR BASEMENT WALKOUT IS 0.5' LOWER THAN FINISHED GROUND ELEVATION SHOWN AT FRONT OF HOUSE. BASEMENT FLOOR ELEVATION IS 0.5' ABOVE REAR FINISHED GROUND ELEVATION SHOWN.

NOTE: FOR ALL RECOMMENDED HOUSE TYPES, GARAGE FLOOR ELEVATION IS 0.3' ABOVE FINISHED GROUND ELEVATION SHOWN AT FRONT OF HOUSE. TOP OF BLOCK ELEVATION IS 0.7' ABOVE FINISHED GROUND ELEVATION SHOWN AT FRONT OF HOUSE.

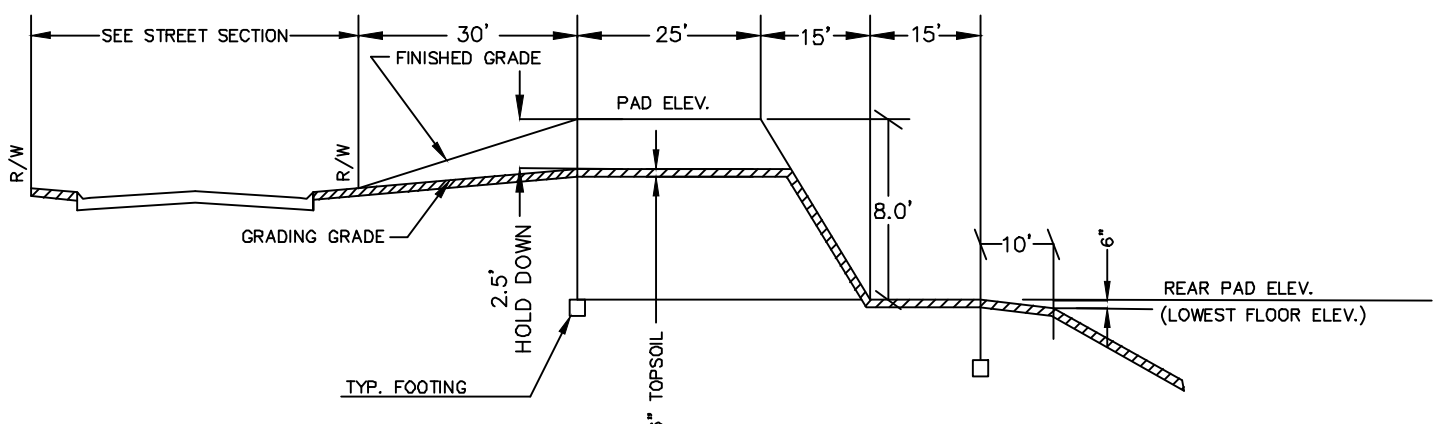


**LOT BENCHING DETAIL**

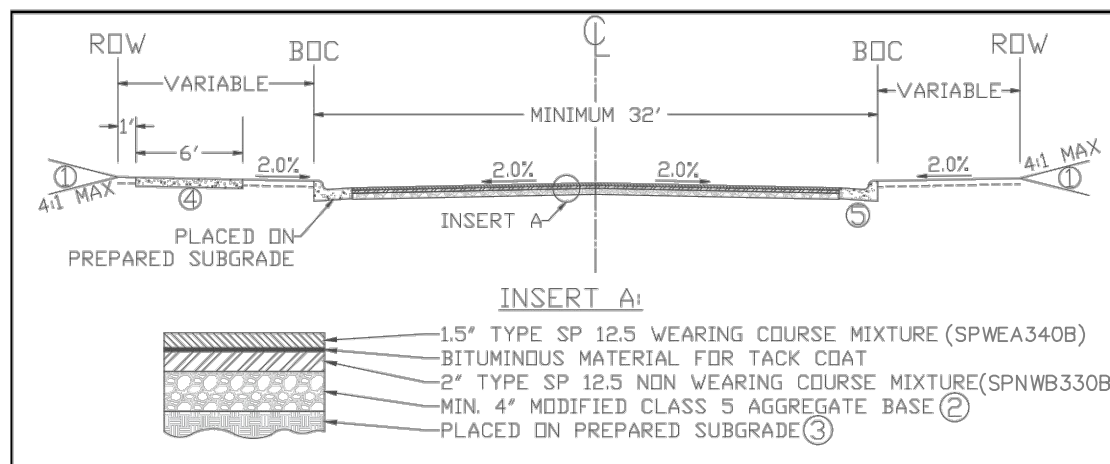
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**TYPICAL NURP BASIN CROSS SECTION**



**RAMBLER WALKOUT SECTION (RWO)**



- REFERENCE NOTES:**
- GRADE TO MATCH EXISTING SURFACE MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARD. SEE CITY PLATE No. ERO-6
  - CLASS 5 GRADATION IS MODIFIED PER CITY PLATE No. STR-26
  - CONTRACTOR SHALL SCARIFY AND COMPACT, ACCORDING TO THE SPECIFIED DENSITY METHOD, THE TOP 12 INCHES OF MATERIAL PRIOR TO PLACING ANY FILL MATERIALS OR CLASS 5 AGGREGATE BASE.
  - ALL SIDEWALKS SHALL BE 6" THICK, 6' WIDE, PLACED ON PREPARED SUBGRADE.
  - CONCRETE CURB AND GUTTER PER PLAN SEE CITY PLATE No. STR-1.

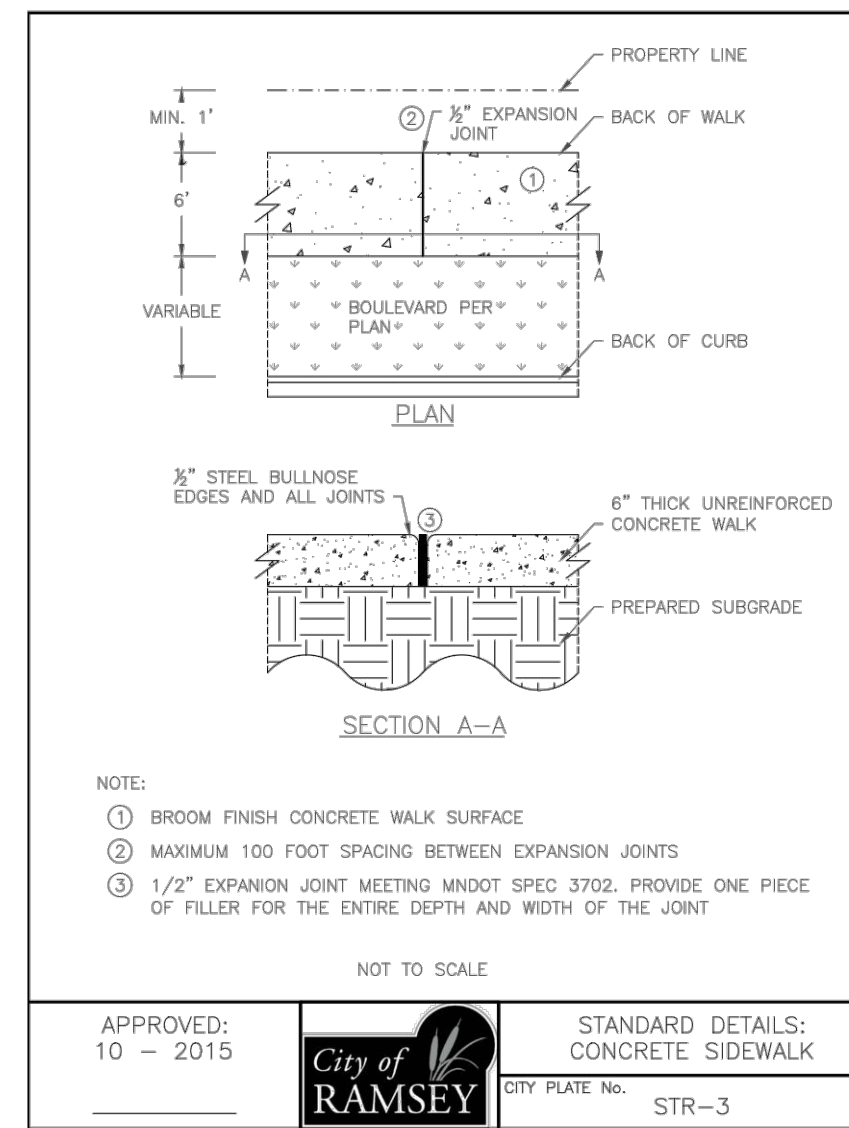
APPROVED: 4 - 2016  
 City of RAMSEY  
 CITY PLATE No. STR-5  
 STANDARD DETAILS: 32' - URBAN STREET

**MNDOT 2016 SPEC**

MNDOT 2016 SPEC TABLE 3877-1	COMMON TOPSOIL BORROW	REQUIREMENT	RANGE	TEST METHOD
MATERIAL PASSING THE 3/4 IN [19MM]	100%	ASTM D 422		
MATERIAL PASSING NO. 4 [4.75MM]	>85%			
CLAY	5% - 35%	ASTM D 422		
SILT	5% - 70%	ASTM D 422		
SAND	10% - 75%	ASTM D 422		
ORGANIC MATTER	3% - 15%	ASTM D 2974		
pH	6.1-7.8	ASTM G 51		

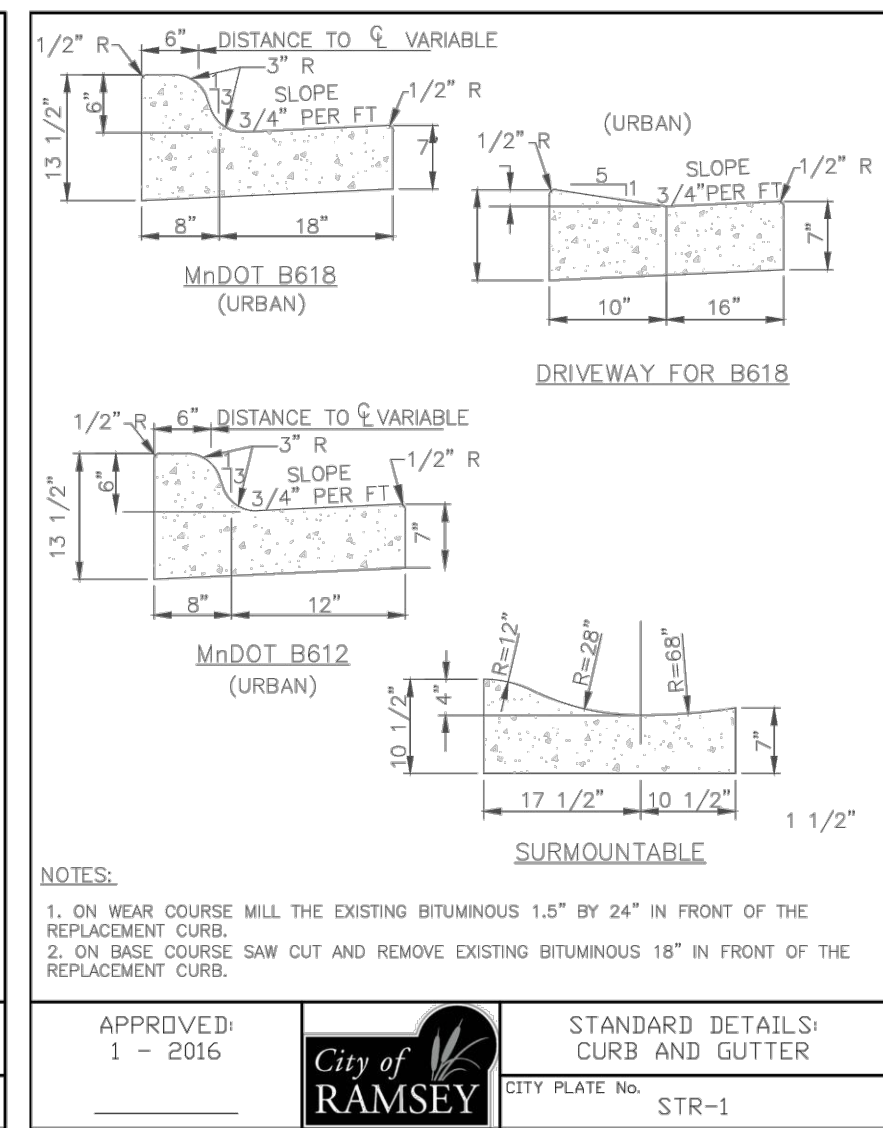
NOTE:  
 1. INSTALLATION OF 4" OF TOPSOIL MEETING MNDOT SPECIFICATION 3877A COMMON TOPSOIL BORROW, MAY BE REQUIRED ACROSS ALL DISTURBED AREAS.  
 2. A SOIL CERTIFICATION FROM A GEOTECHNICAL FIRM MUST BE PROVIDED VERIFYING THE SOURCE OF MATERIAL AND QUANTITY.  
 3. TOPSOIL MUST COME FROM A CITY APPROVED SOURCE.

APPROVED: 1 - 2016  
 City of RAMSEY  
 CITY PLATE No. ERO-6  
 STANDARD DETAILS: TOPSOIL REQUIREMENTS



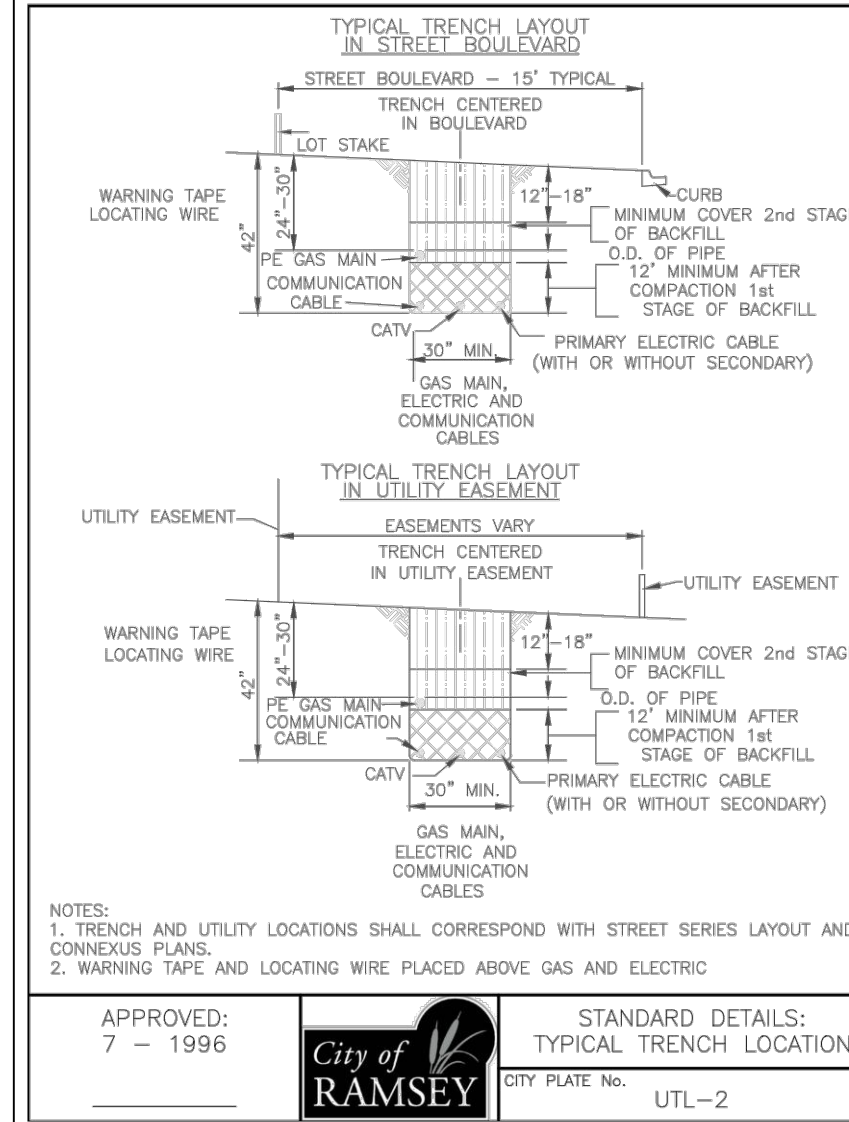
- NOTE:  
 1. BROOM FINISH CONCRETE WALK SURFACE  
 2. MAXIMUM 100 FOOT SPACING BETWEEN EXPANSION JOINTS  
 3. 1/2" EXPANSION JOINT MEETING MNDOT SPEC 3702. PROVIDE ONE PIECE OF FILLER FOR THE ENTIRE DEPTH AND WIDTH OF THE JOINT

APPROVED: 10 - 2015  
 City of RAMSEY  
 CITY PLATE No. STR-3  
 STANDARD DETAILS: CONCRETE SIDEWALK



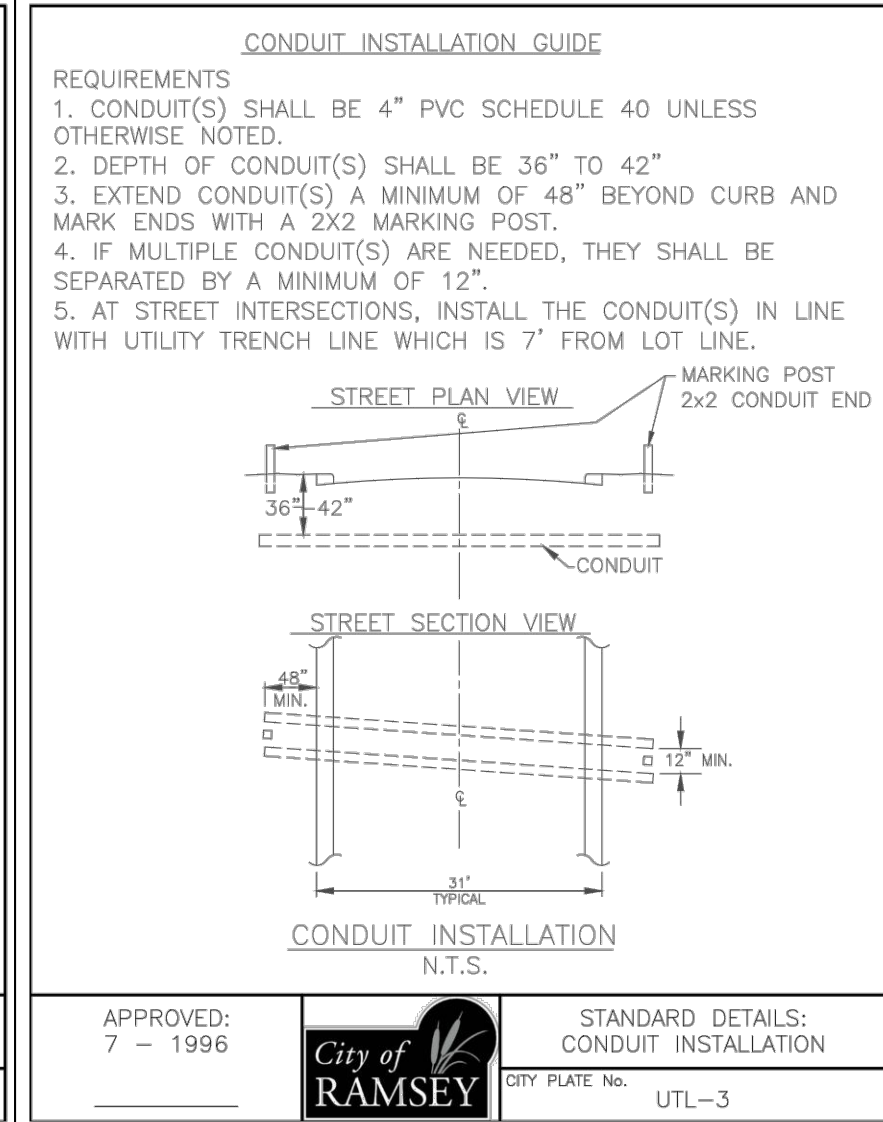
- NOTES:  
 1. ON WEAR COURSE MILL THE EXISTING BITUMINOUS 1.5" BY 24" IN FRONT OF THE REPLACEMENT CURB.  
 2. ON BASE COURSE SAW CUT AND REMOVE EXISTING BITUMINOUS 18" IN FRONT OF THE REPLACEMENT CURB.

APPROVED: 1 - 2016  
 City of RAMSEY  
 CITY PLATE No. STR-1  
 STANDARD DETAILS: CURB AND GUTTER



- NOTES:  
 1. TRENCH AND UTILITY LOCATIONS SHALL CORRESPOND WITH STREET SERIES LAYOUT AND CONNEXUS PLANS.  
 2. WARNING TAPE AND LOCATING WIRE PLACED ABOVE GAS AND ELECTRIC

APPROVED: 7 - 1996  
 City of RAMSEY  
 CITY PLATE No. UTL-2  
 STANDARD DETAILS: TYPICAL TRENCH LOCATION



**CONDUIT INSTALLATION GUIDE**

- REQUIREMENTS  
 1. CONDUIT(S) SHALL BE 4" PVC SCHEDULE 40 UNLESS OTHERWISE NOTED.  
 2. DEPTH OF CONDUIT(S) SHALL BE 36" TO 42"  
 3. EXTEND CONDUIT(S) A MINIMUM OF 48" BEYOND CURB AND MARK ENDS WITH A 2X2 MARKING POST.  
 4. IF MULTIPLE CONDUIT(S) ARE NEEDED, THEY SHALL BE SEPARATED BY A MINIMUM OF 12".  
 5. AT STREET INTERSECTIONS, INSTALL THE CONDUIT(S) IN LINE WITH UTILITY TRENCH LINE WHICH IS 7' FROM LOT LINE.

APPROVED: 7 - 1996  
 City of RAMSEY  
 CITY PLATE No. UTL-3  
 STANDARD DETAILS: CONDUIT INSTALLATION

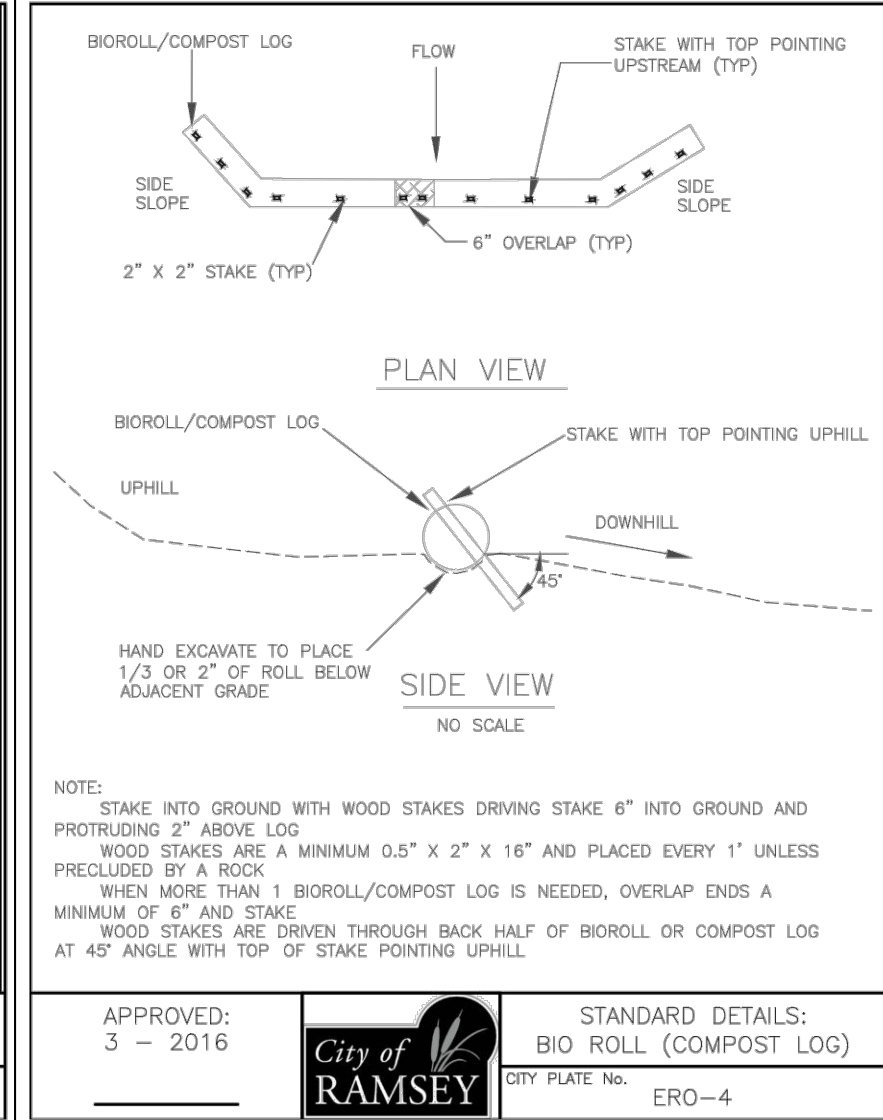
**TABLE A  
 MODIFIED CLASS 5  
 SPECIFICATIONS**

% PASSING

1"	100
3/4"	90 - 100
3/8"	50 - 80
No.4	35 - 70
No.10	20 - 60
No.40	10 - 35
No.200	5 - 10

NOTE:  
 1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.  
 2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A, THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEETS THE REQUIREMENTS OF TABLE A.  
 3. IN THE EVENT THAT RECYCLED MATERIAL IS USED IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED: 2 - 2003  
 City of RAMSEY  
 CITY PLATE No. STR-26  
 STANDARD DETAILS: MODIFIED CLASS 5 SPECIFICATIONS



- NOTE:  
 1. STAKE INTO GROUND WITH WOOD STAKES DRIVING STAKE 6" INTO GROUND AND PROTRUDING 2" ABOVE LOG.  
 2. WOOD STAKES ARE A MINIMUM 0.5" x 2" x 16" AND PLACED EVERY 1' UNLESS PRECLUDED BY A ROCK.  
 3. WHEN MORE THAN 1 BIOROLL/COMPOST LOG IS NEEDED, OVERLAP ENDS A MINIMUM OF 6" AND STAKE.  
 4. WOOD STAKES ARE DRIVEN THROUGH BACK HALF OF BIOROLL OR COMPOST LOG AT 45° ANGLE WITH TOP OF STAKE POINTING UPHILL.

APPROVED: 3 - 2016  
 City of RAMSEY  
 CITY PLATE No. ERO-4  
 STANDARD DETAILS: BIO ROLL (COMPOST LOG)

**GENERAL UTILITY CONSTRUCTION NOTES:**

- SPECIFICATIONS: THE WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF RAMSEY STANDARD SPECIFICATIONS AND CITY ENGINEER ASSOCIATION OF MINNESOTA SPECIFICATIONS, MOST RECENT VERSION.
- EXISTING FACILITIES: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ALL EXISTING UTILITIES BEFORE STARTING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO SANITARY AND STORM SEWER, WATERMAIN, NATURAL GAS, ELECTRIC, TELEPHONE AND CABLE TELEVISION SERVICES.
- CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICT BETWEEN THE EXISTING UTILITIES AND THE PROPOSED CONSTRUCTION. THE ENGINEER IN COOPERATION WITH THE UTILITY COMPANIES, SHALL DETERMINE THE NECESSITY FOR ANY RELOCATION OF THESE FACILITIES.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FACILITIES SO THAT THEY WILL CONTINUE TO FUNCTION IN THEIR PROPER MANNER BOTH DURING CONSTRUCTION AND IN THE FUTURE. ANY SUPPORTING STRUCTURE THAT MAY BE REQUIRED BECAUSE OF THE CONTRACTOR'S OPERATION SHALL BE PROVIDED BY HIM.
- THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY CONDITIONS SUCH AS SAND IN MANHOLES OR VALVE BOXES EXISTING PRIOR TO THE CONTRACTOR'S EXCAVATION. ONCE EXCAVATION HAS COMMENCED, IT WILL BE ASSUMED THAT ALL DAMAGE TO UNDERGROUND UTILITIES HAS BEEN CAUSED BY THE CONTRACTOR'S OPERATIONS AND IT WILL BE HIS RESPONSIBILITY TO MAKE THE NECESSARY REPAIRS.
- CONTRACTOR RESPONSIBILITIES: THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR RECEIVING WATER FROM PUBLIC OR PRIVATE SOURCES AND SECURE NECESSARY PERMITS AND PAY REGULAR CHARGES. WATER IS AVAILABLE AT THE CITY FILL STATION, 14100 JASPAR STREET. WATER MAY NOT BE TAKEN FROM HYDRANTS.
- THE CITY ENGINEER AND THE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCING WORK. CONTRACTORS SHALL BE SUBJECT TO SHUT DOWN IF PROPER NOTIFICATION IS NOT GIVEN TO THE ENGINEER.

CITY STREETS THAT ARE UTILIZED FOR INGRESS TO OR EGRESS FROM THE CONSTRUCTION SITE SHALL BE KEPT FREE OF DIRT AND OTHER DEBRIS RESULTING FROM SAID CONSTRUCTION. COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ADEQUATE STORM DRAINAGE PROTECTION OF THE SITE IN ORDER TO PREVENT EROSION AND SILTING OF ON-SITE AND OFF-SITE AREAS. THIS SHALL BE ACCOMPLISHED BY PLACEMENT OF HAY BALES OR FILTER FABRIC FENCE AROUND THE DRAINAGE INLETS AND OUTLETS AND BY CONSTRUCTION OF DITCHES, BERMS, DEBRIS BASINS, FILTER FABRIC FENCING AND BY ANY OTHER ON-SITE PROTECTION AS DETERMINED BY THE ENGINEER. UNLESS SPECIFICALLY CALLED OUT AS A BID ITEM ON THE BID FORM, ANY TEMPORARY DITCHING, CULVERTS, HAY BALES, AND FILTER FABRIC FENCE NECESSARY TO ACCOMPLISH THIS SHALL BE AT THE CONTRACTOR'S EXPENSE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND LEAVE UNDISTURBED THOSE MARKERS OR MONUMENTS SET FOR THE SUBDIVISION OF LAND.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO UTILIZE THE "GOPHER STATE ONE CALL" EXCAVATION NOTICE SYSTEM AS REQUIRED UNDER MINNESOTA STATUTE CHAPTER 216D, 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION (PHONE 454-0002 IN THE TWIN CITIES METRO AREA OR TOLL FREE 1-800-242-8511).

4. **COMPACTION:** DENSITY TESTS SHALL BE TAKEN ON ALL TRENCHES WITHIN THE STREET CROSS SECTION AND THE PAD AREAS TO EVALUATE THE COMPACTION ACHIEVED DURING UTILITY CONSTRUCTION. WITHIN THE UPPER 3 FEET OF STREET SUBGRADE THE CONTRACTOR SHALL INSURE THAT ALL SOILS BE NOT MORE THAN ONE PERCENTAGE POINT OVER THE SOIL'S STANDARD PROCTOR OPTIMUM MOISTURE CONTENT, AND THAT COMPACTION TO A MINIMUM OF 100% OF STANDARD PROCTOR DENSITY (AASHTO T-99) BE PROVIDED. WITHIN UTILITY TRENCHES IN OPEN SPACE AREAS (PAD AREAS) AND AREAS BELOW THE UPPER 3 FEET OF STREET SUBGRADE, THE CONTRACTOR SHALL INSURE THAT ALL SOILS BE NOT MORE THAN THREE PERCENTAGE POINTS OVER THE SOIL'S STANDARD PROCTOR OPTIMUM MOISTURE CONTENT, AND THAT COMPACTION TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY BE PROVIDED. THE SURFACE OF ALL UTILITY TRENCHES SHALL BE FINISHED GRADED TO THE ELEVATIONS AS STAKED BY THE ENGINEER TO WITHIN A TOLERANCE OF ±0.3' IN OPEN SPACE AREAS AND ±0.1' WITHIN STREET RIGHT OF WAYS. THE DENSITY WILL BE TESTED BY AN APPROVED TESTING LABORATORY. AN APPROVED TESTING METHOD WHICH UTILIZES A NUCLEAR DENSITY METER MAY BE USED FOR THE DENSITY TESTS. THE LOCATION OF THE TESTS WILL BE AT THE DIRECTION OF THE ENGINEER.

THE OWNER SHALL BEAR ALL COSTS OF THE TESTING. ANY AREAS WHICH FAIL TO MEET THE COMPACTION REQUIREMENTS OUTLINED IN THIS SECTION SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. ALL COSTS FOR ANY RE-TESTING ASSOCIATED WITH ANY CORRECTIVE WORK SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

- ALL WATERMAIN TO BE INSTALLED WITH 7.5' MINIMUM COVER.
- ALL 6" WATERMAIN TO BE CONSTRUCTED OF DIP CLASS 53 PIPE & 8" WATERMAIN TO BE CONSTRUCTED OF DIP CLASS 52 PIPE.
- ALL 8" SANITARY SEWER TO BE CONSTRUCTED OF PVC SDR 35 PIPE.

**BENCHMARK**

- TNH LOT 1, BLOCK 2, WOODLANDS 1ST ADD. TOP NUT HYDRANT ELEV=897.75
- TNH LOTS 6&7, BLOCK 4, WOODLANDS 1ST ADD. TOP NUT HYDRANT ELEV=885.00

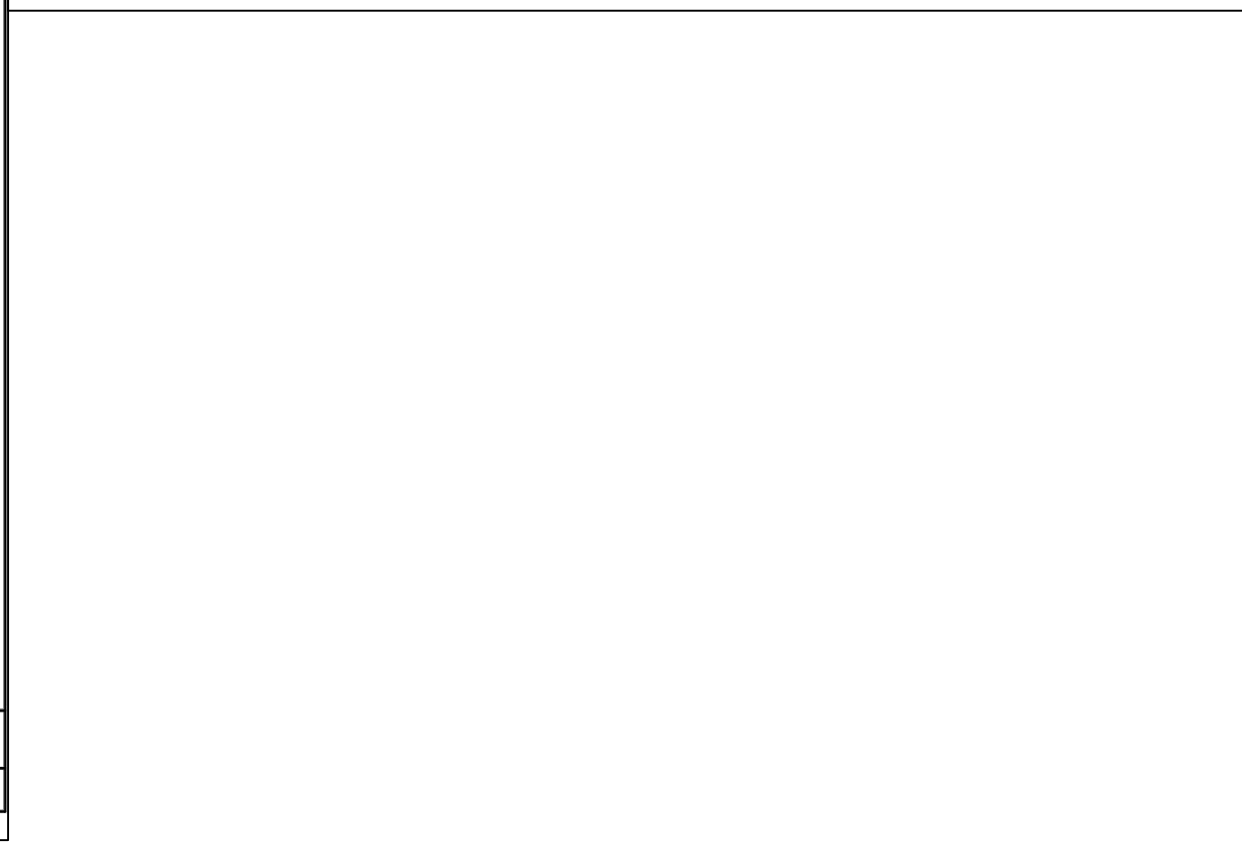
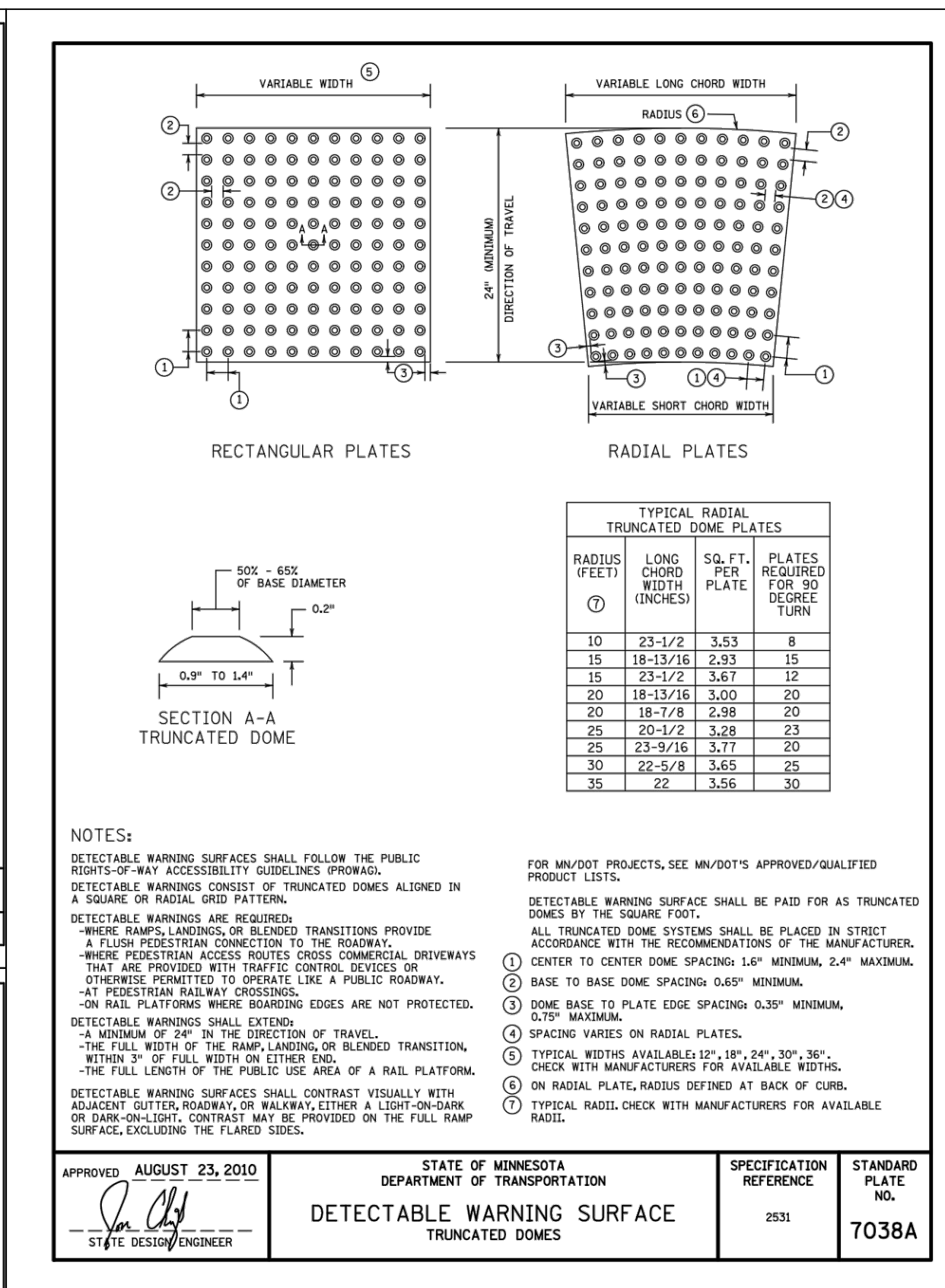
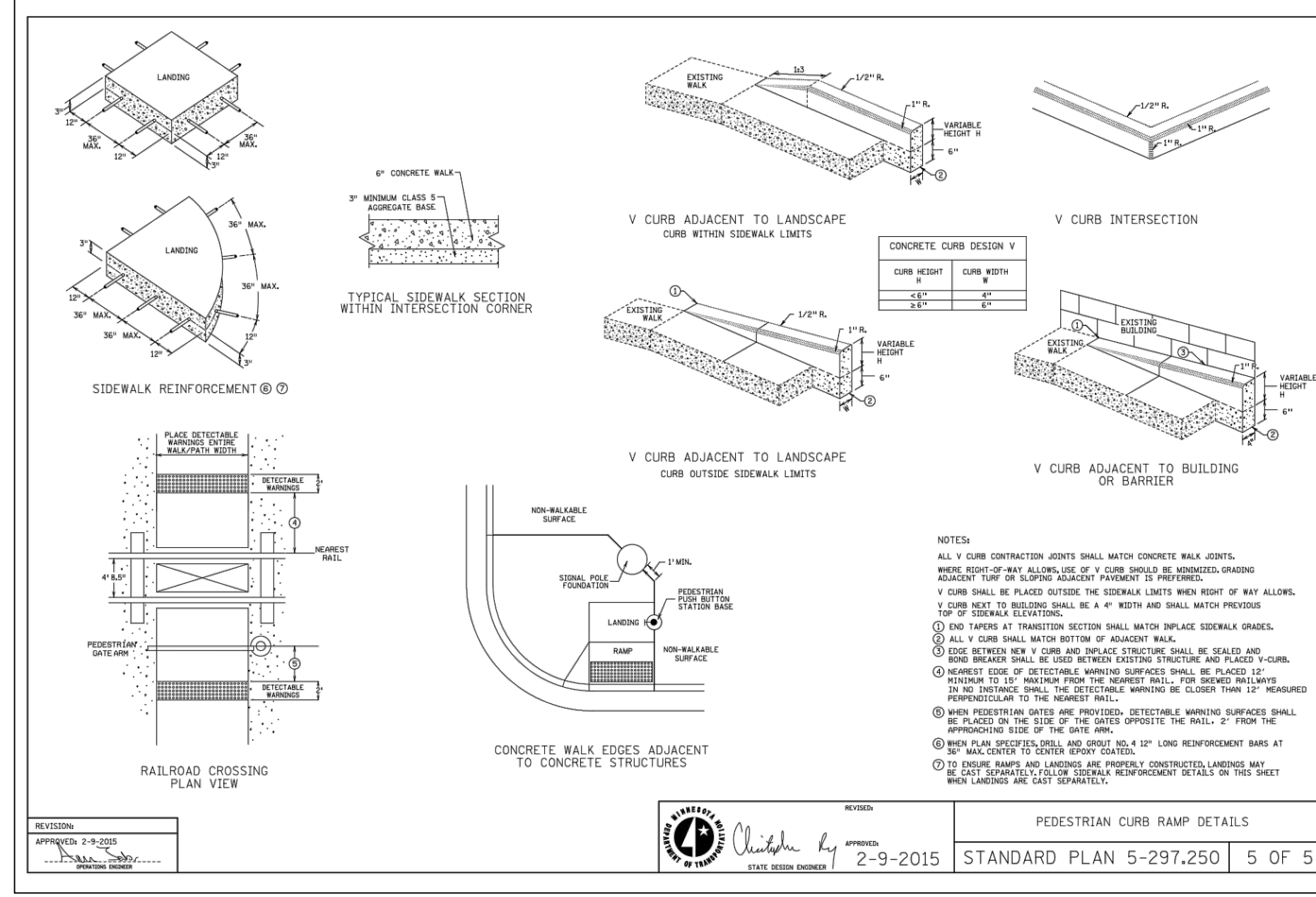
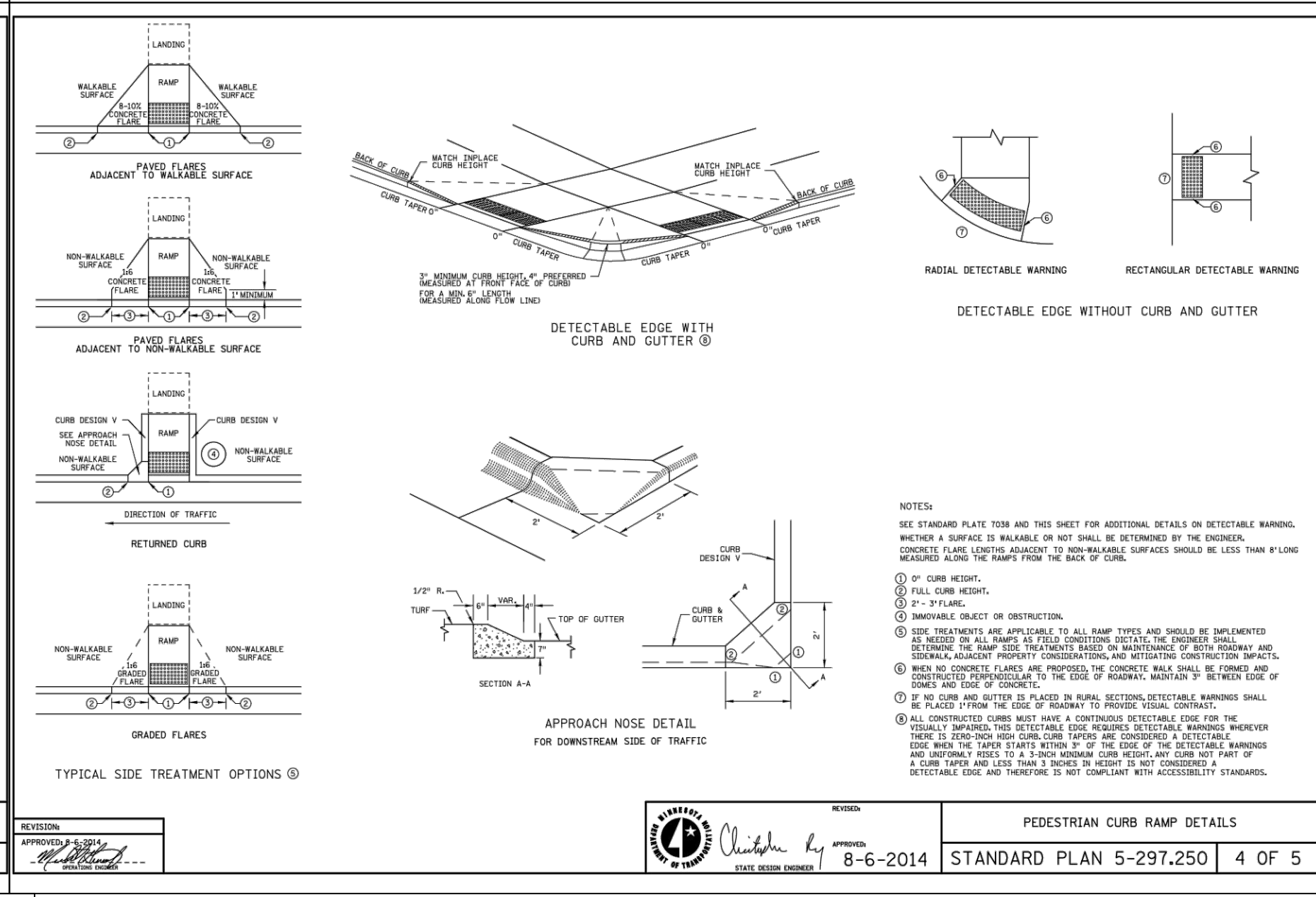
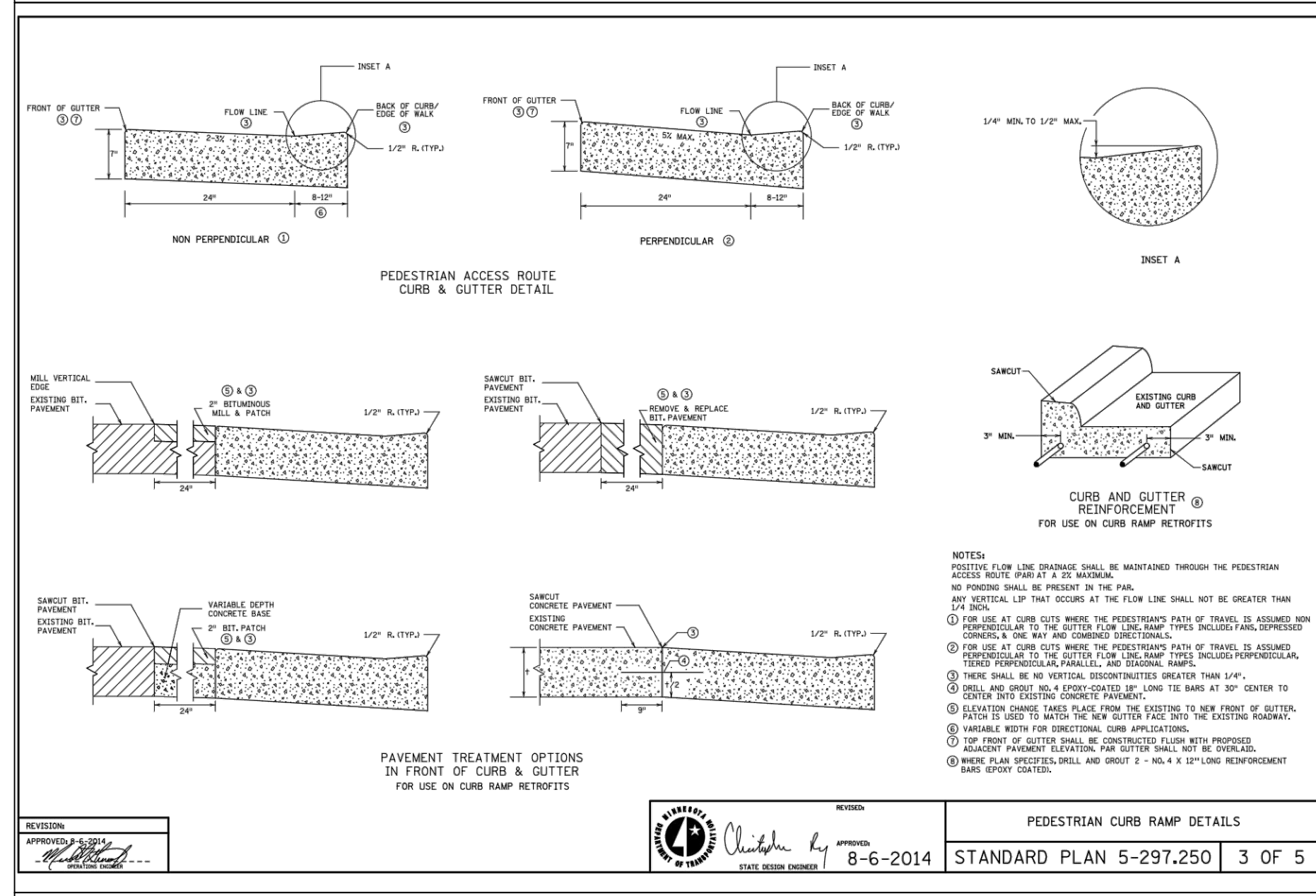
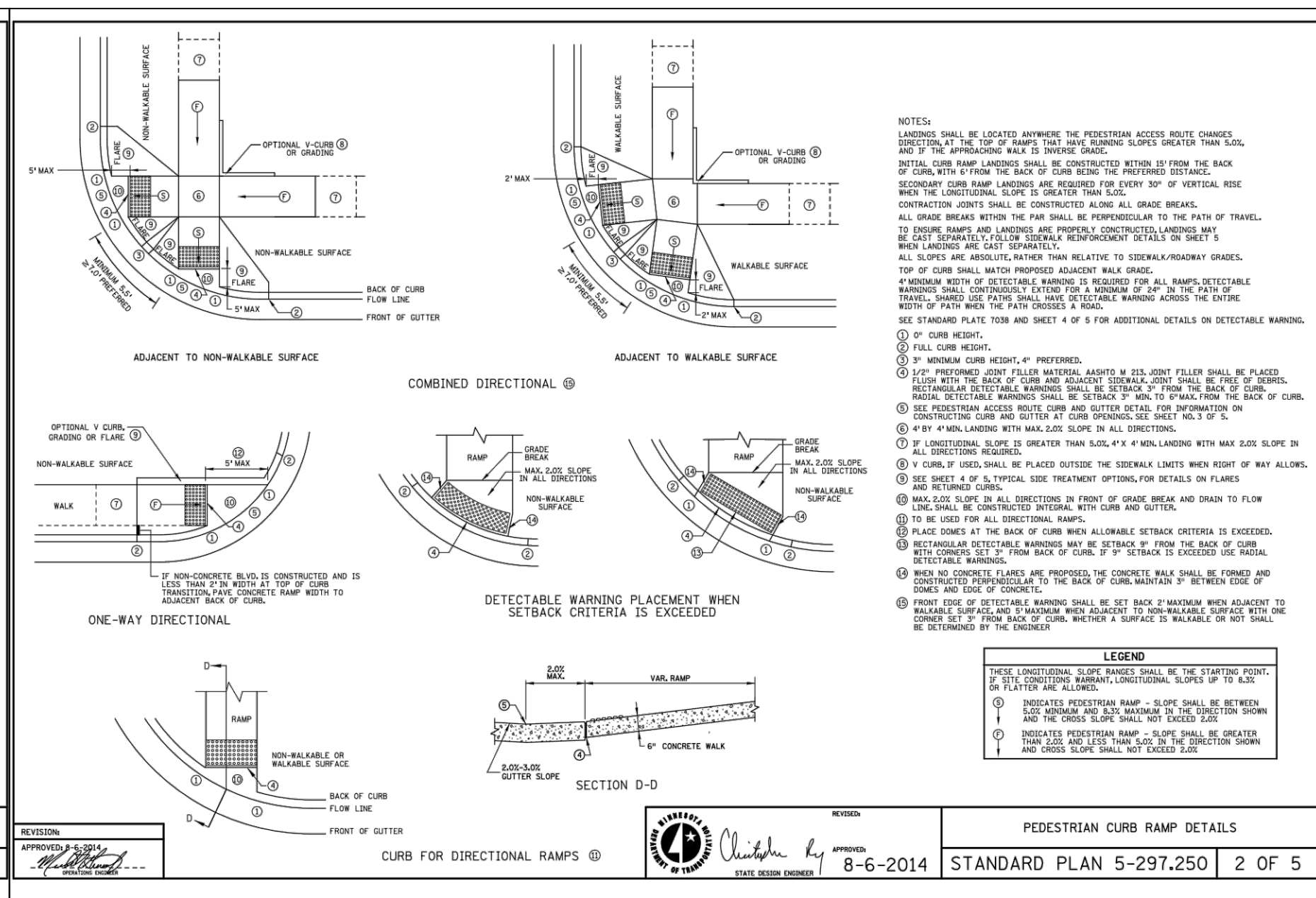
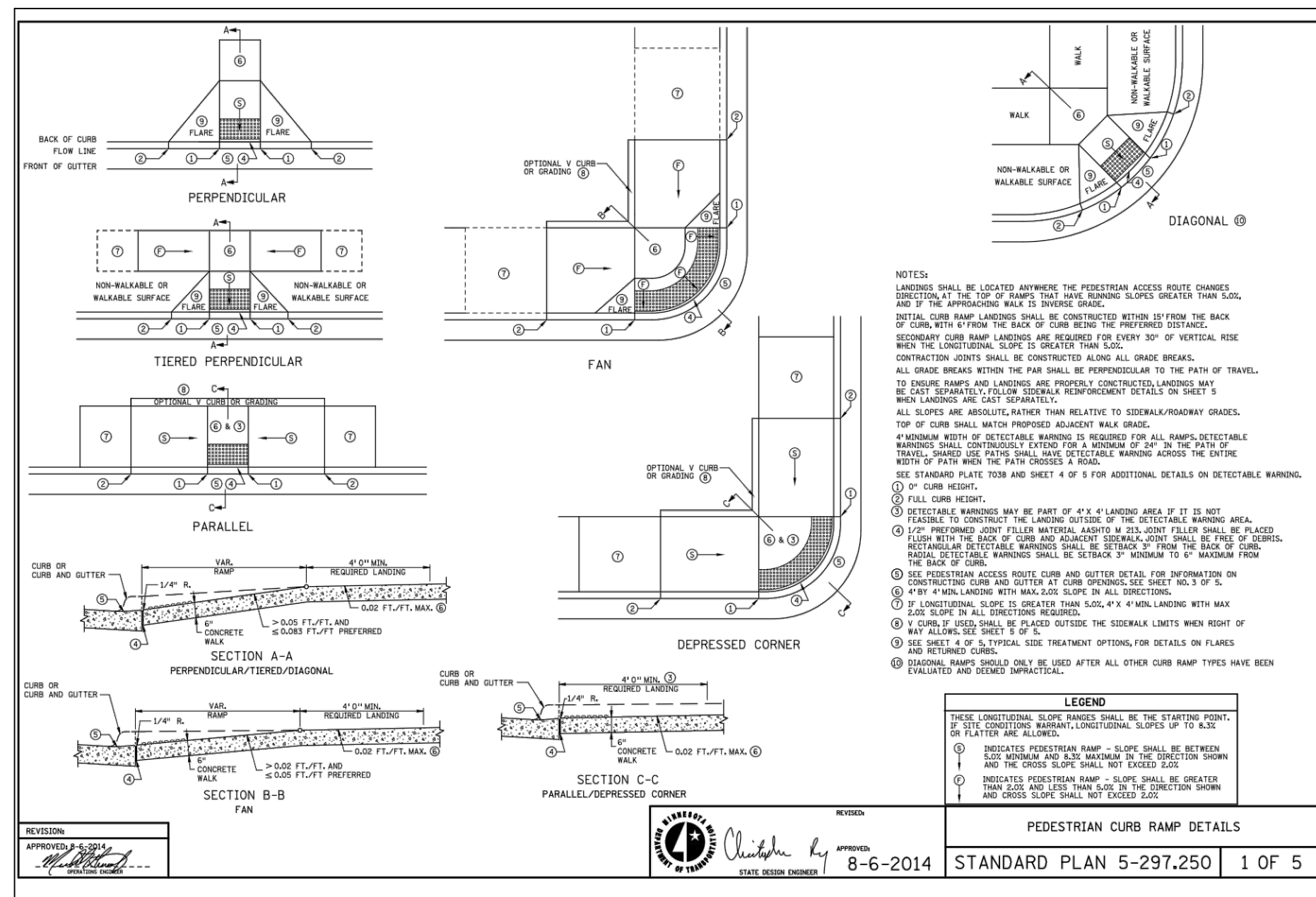
**James R. Hill, Inc.**  
 PLANNERS / ENGINEERS / SURVEYORS  
 2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337  
 PHONE: (952)890-6044 FAX: (952)890-6244

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 Professional Engineer under the laws of the State of Minnesota.  
 J. COOPER  
 Date: 10/7/16 Reg. No. 18495

**ST. HILAIRE PROPERTY**  
 RAMSEY, MINNESOTA  
**DETAILS FOR LENNAR**  
 16305 36TH AVE N, #600, PLYMOUTH, MN 55446

**DRAWN BY**  
 CJK  
**DATE**  
 10/7/16  
**REVISIONS**  
  
**CAD FILE**  
 23253-30D  
**PROJECT NO.**  
 23253-30  
 8.11

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 2500 W. Ctr. Rd. 42, Suite 120, Burnsville, MN 55337  
 PHONE: (952)890-6044 FAX: (952)890-6244

I hereby certify that this plan, specification or report was prepared by me or by a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 J. R. Hill, P.E.  
 DATE: 10/7/16 REG. NO. 18495

**ST. HILAIRE PROPERTY**  
 RAMSEY, MINNESOTA  
**DETAILS**  
 FOR  
**LENNAR**  
 16305 36TH AVE. N., #600, PLYMOUTH, MN 55446

**DRAWN BY**  
 CJK  
**DATE**  
 10/7/16  
**REVISIONS**

**CAD FILE**  
 23253-30D  
**PROJECT NO.**  
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