

# French Landing - Phase II

12090 Haggerty Road Van Buren Township, Michigan 48111

Issued for Bids: April 18, 2022

## Landscape Park Improvements

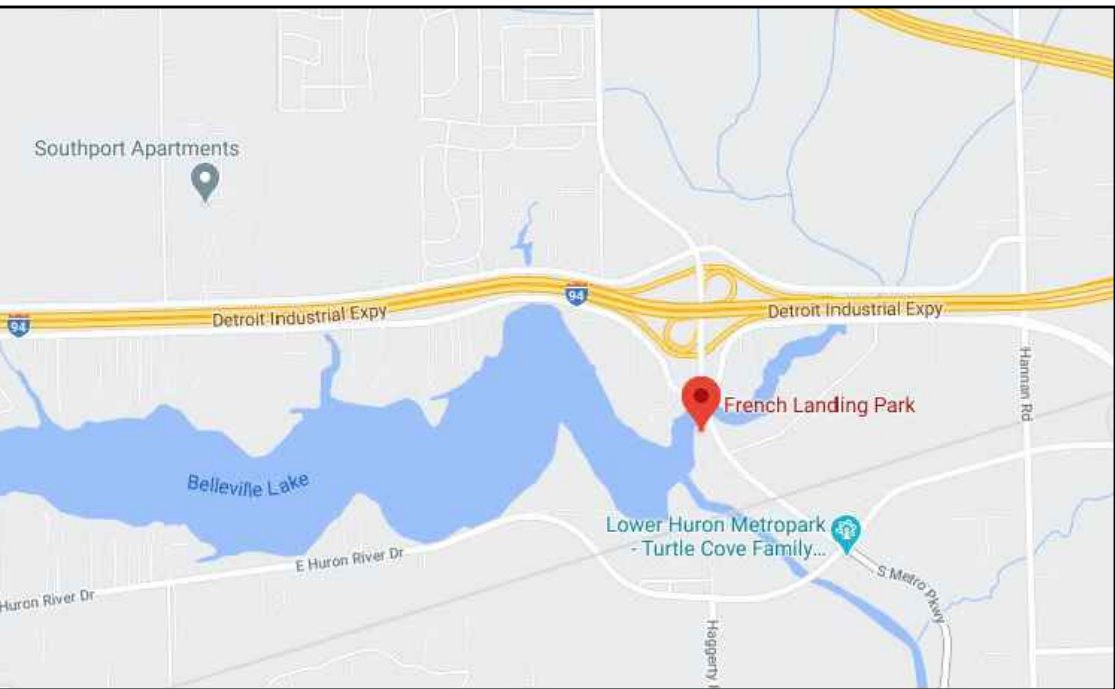
Project Number: V05-221

### Project Sponsor



Van Buren Charter Township  
46425 Tyler Road  
Van Buren Michigan 48111

### Location Map



### Landscape Architect



### Irrigation

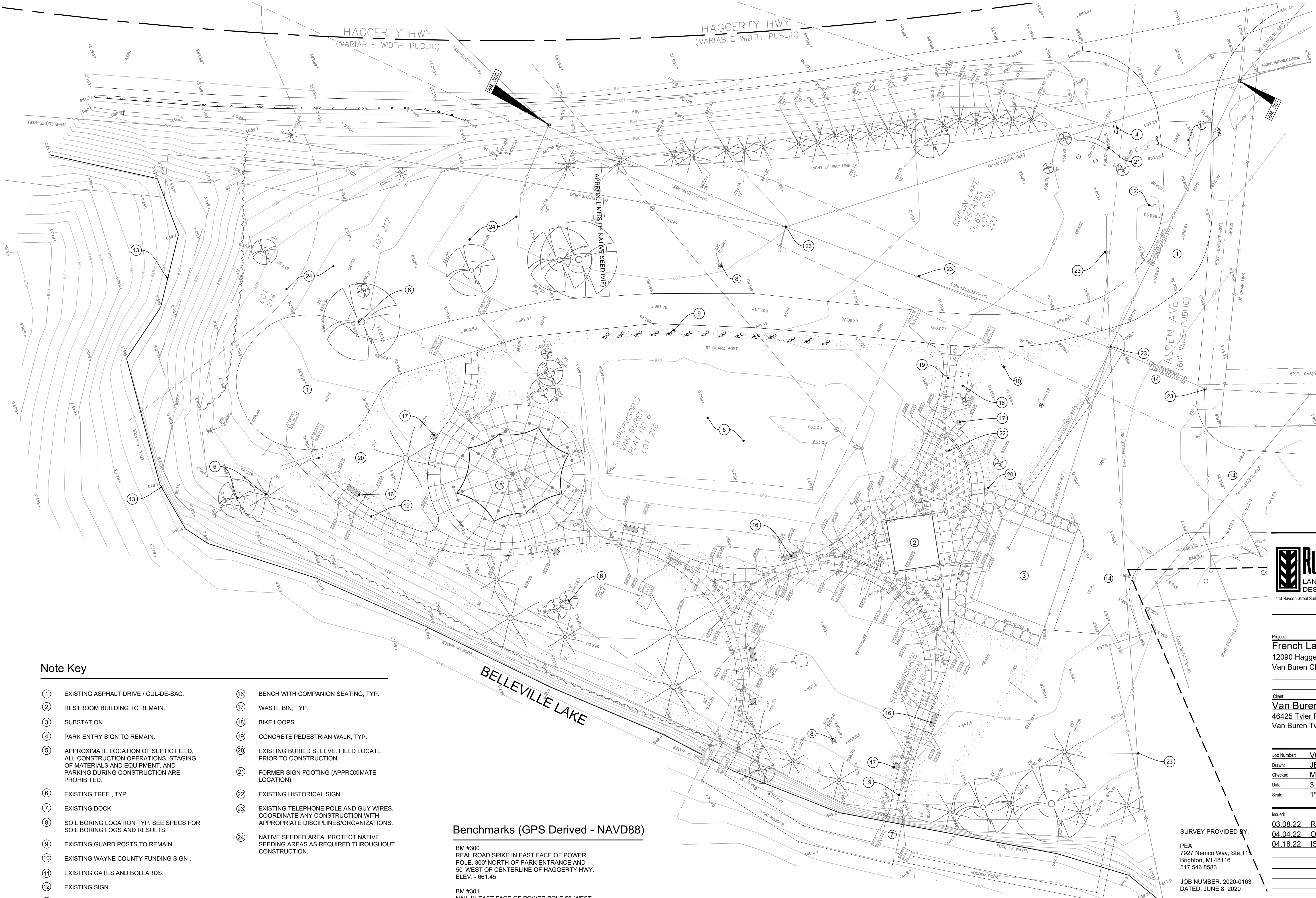


4843 Kittery NW  
Comstock Park, Michigan 49321  
Tel. (248) 789-0330  
email: abarnes@lqdassets.org  
www.lqdassets.org

### List of Drawings

- COVER
- L-1 EXISTING CONDITIONS
- L-2 DEMOLITION PLAN
- L-3 LAYOUT PLAN
- L-4 GRADING PLAN
- L-5 LANDSCAPE PLAN
- L-6 LANDSCAPE DETAILS
- L-7 LANDSCAPE DETAILS
- IR-1 IRRIGATION PLAN & DETAILS





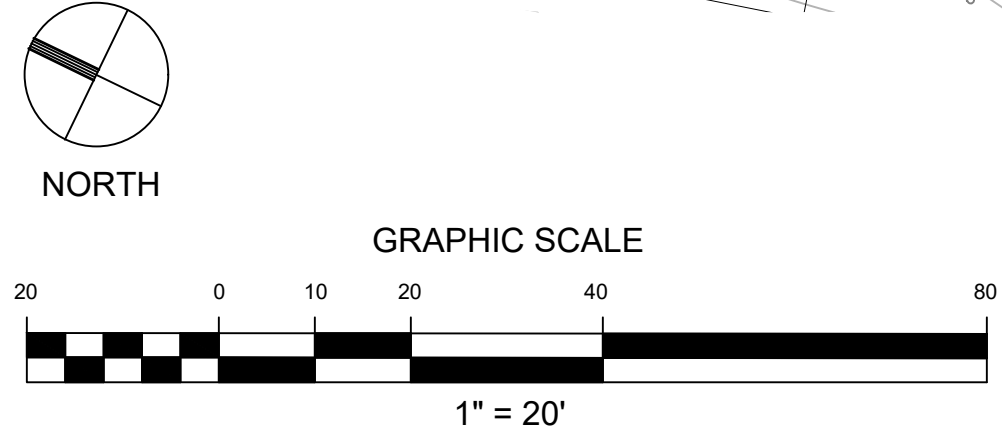
Note Key

- |    |                                                                                                                                                        |    |                                                                                                                |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------------------|
| 1  | EXISTING ASPHALT DRIVE / CUL-DE-SAC.                                                                                                                   | 16 | BENCH WITH COMPANION SEATING, TYP.                                                                             |
| 2  | RESTROOM BUILDING TO REMAIN.                                                                                                                           | 17 | WASTE BIN, TYP.                                                                                                |
| 3  | SUBSTATION.                                                                                                                                            | 18 | BIKE LOOPS.                                                                                                    |
| 4  | PARK ENTRY SIGN TO REMAIN.                                                                                                                             | 19 | CONCRETE PEDESTRIAN WALK, TYP.                                                                                 |
| 5  | APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED. | 20 | EXISTING BURIED SLEEVE. FIELD LOCATE PRIOR TO CONSTRUCTION.                                                    |
| 6  | EXISTING TREE , TYP.                                                                                                                                   | 21 | FORMER SIGN FOOTING (APPROXIMATE LOCATION).                                                                    |
| 7  | EXISTING DOCK.                                                                                                                                         | 22 | EXISTING HISTORICAL SIGN.                                                                                      |
| 8  | SOIL BORING LOCATION TYP. SEE SPECS FOR SOIL BORING LOGS AND RESULTS.                                                                                  | 23 | EXISTING TELEPHONE POLE AND GUY WIRES. COORDINATE ANY CONSTRUCTION WITH APPROPRIATE DISCIPLINES/ORGANIZATIONS. |
| 9  | EXISTING GUARD POSTS TO REMAIN.                                                                                                                        | 24 | NATIVE SEEDED AREA. PROTECT NATIVE SEEDING AREAS AS REQUIRED THROUGHOUT CONSTRUCTION.                          |
| 10 | EXISTING WAYNE COUNTY FUNDING SIGN .                                                                                                                   |    |                                                                                                                |
| 11 | EXISTING GATES AND BOLLARDS.                                                                                                                           |    |                                                                                                                |
| 12 | EXISTING SIGN .                                                                                                                                        |    |                                                                                                                |
| 13 | APPROXIMATE EDGE OF WATER.                                                                                                                             |    |                                                                                                                |
| 14 | EXISTING GRAVEL DRIVE.                                                                                                                                 |    |                                                                                                                |
| 15 | EXISTING TENSILE STRUCTURE.                                                                                                                            |    |                                                                                                                |

Benchmarks (GPS Derived - NAVD88)

BM #300  
REAL ROAD SPIKE IN EAST FACE OF POWER POLE. 300' NORTH OF PARK ENTRANCE AND 50' WEST OF CENTERLINE OF HAGGERTY HWY.  
ELEV. - 661.45

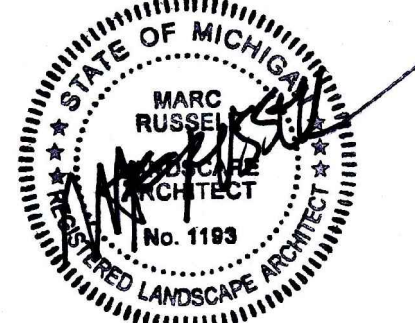
BM #301  
NAIL IN EAST FACE OF POWER POLE 50' WEST OF CENTERLINE OF HAGGERTY HWY. AND 20' SOUTH OF PARK ENTRANCE  
ELEV. - 660.11



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Van Buren Twp., MI 48111

Job Number: **V05-221**  
Drawn: **JBG**  
Checked: **MRR**  
Date: **3.8.22**  
Scale: **1" = 20' - 0"**

Issued:  
**03.08.22 REVIEW**  
**04.04.22 OWNER REVIEW**  
**04.18.22 ISSUED FOR BIDS**

JOB NUMBER: 2020-0163  
DATED: JUNE 8, 2020

Sheet:  
**Existing Conditions**

Sheet Number: **L-1**  
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## Demolition Notes:

It shall be the Contractor's responsibility to verify all existing survey information including the utility systems before any demolition or construction work occurs. Any discrepancies with the survey information shall be reported to the architect and owner's representative immediately.

Contractor shall be responsible for making themselves familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for cost incurred due to damage and replacement of said utilities.

All existing improvements, irrigation, materials and plant material to remain within the new construction area shall be properly and adequately protected from damage during the demolition operations. It shall be the responsibility of the Contractor to restore to the original condition any of these existing items that are damaged or disturbed in any way.

All materials to be reused or salvaged shall be stored in an area designated by the Owner or Owners Representative for that purpose. All salvaged materials shall remain the property of the Owner.

Streets, sidewalks and adjacent properties shall be protected throughout the work as required by local codes and regulations and approved by the owner.

All material specified to be removed shall be disposed of off-site per local codes and regulations. Contractor shall coordinate method of disposal with City Engineer prior to commencement of work.

During demolition operations every effort shall be made to control dust, per City requirements.

Trees and shrubs to be removed within the limits of work shall be clearly identified with brightly colored ribbon.

Grubbing shall include all weeds, shrubs, stumps and root systems of removed plant material, irrigation piping and any other irrigation materials within the limits of demolition. Grubbing shall be to the depths below proposed improvements indicated below:  
\*Concrete paving and walkways-Total depth of paving and sub-base.  
\*Asphalt paving-Total depth of paving and sub-base.  
\*Lawn and other plantings areas-Remove depth required of stumps and roots over one (1) inch in diameter and turf.

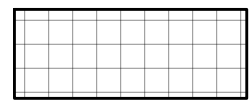
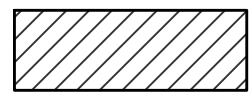
Protect existing trees to remain per typical tree protection detail.

Sawcut and remove existing asphalt as required to install new site improvements and adjust grades within City streets. All work within City right of way shall meet City standards and specifications.

Arrange for applicable utility company to relocate existing cables, wires, phone lines, etc. along with Edison power lines as required.

Contractor shall secure and pay for all applicable permits and fees if applicable for the complete construction of the project.

## Legend

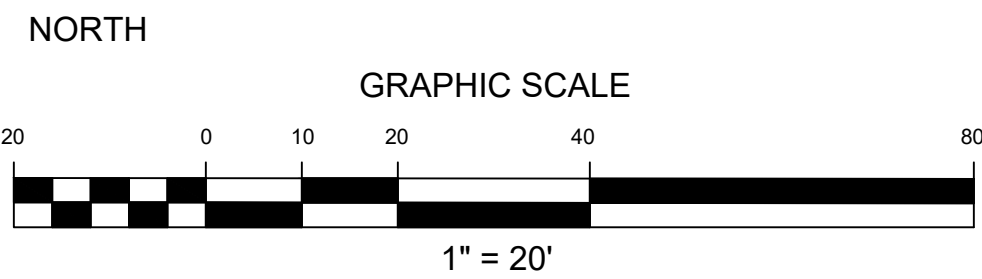
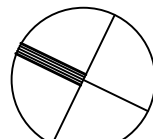
|                                                                                     |                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>LANDSCAPE REMOVAL:</b> REMOVE ALL LANDSCAPE AND ENTIRE ROOT STRUCTURE. REMOVE ALL MULCH, REMOVE SOD, STRIP TOPSOIL AND EXCAVATE TO ACCEPT NEW CONSTRUCTION. DISPOSE OF ALL REMOVED ITEMS LEGALLY OFF SITE |
|  | <b>CONCRETE SIDEWALK REMOVAL:</b> SAWCUT TO NEAREST JOINT AND REMOVE CONCRETE WALK AND BASE. PROTECT ALL EXISTING IMPROVEMENTS AS REQUIRED                                                                   |
|  | <b>ASPHALT DRIVE REMOVAL:</b> SAWCUT HMA ASPHALT VERTICAL FULL DEPTH AND REMOVE ASPHALT AND BASE. PROTECT ALL EXISTING IMPROVEMENTS AS REQUIRED                                                              |
|  | <b>GRAVEL REMOVAL:</b> EXCAVATE TO ACCEPT NEW CONSTRUCTION. SEE TYP. DETAILS.                                                                                                                                |
|  | APPROXIMATE LIMIT OF WORK, SEE LAYOUT AND GRADING PLANS.                                                                                                                                                     |
|  | SILT FENCE, SEE TYP. DETAILS.                                                                                                                                                                                |
|  | SOIL BORING LOCATION, SEE SPECS FOR BORING LOGS AND RESULTS .                                                                                                                                                |

## Note Key

- GRAVEL STORAGE AREA. COORDINATE WITH OWNER TO ENSURE OPERATIONS OF EXISTING USES ARE MAINTAINED THROUGHOUT CONSTRUCTION.
- TREE PROTECTION, SEE TYP. DETAIL.
- REMOVE BARRIER GATE, POSTS AND FOOTINGS.
- FIELD LOCATE AND REMOVE FORMER SIGN FOOTING.
- EXISTING BOLLARDS TO REMAIN. PROTECT DURING CONSTRUCTION. CLEAN, AND PREP FOR PAINTING, SEE NOTE ON SHEET L-3.
- EXISTING BUMPER BLOCKS IN CUL-DE-SAC. (APPROXIMATELY 8 TOTAL. VERIFY IN FIELD) REMOVE AND DISPOSE OF LEGALLY OFF-SITE.
- APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED.

## ALTERNATE 2 (ASPHALT)

IN LIEU OF REMOVING ASPHALT TO FULL DEPTH AND REMOVING FROM SITE, SUBSTITUTE MILLING, GRADING, AND SUPPLEMENT WITH 21AA LIMESTONE AS REQUIRED. SEE TYP. DETAILS AND GRADING PLAN



3 FULL WORKING DAYS  
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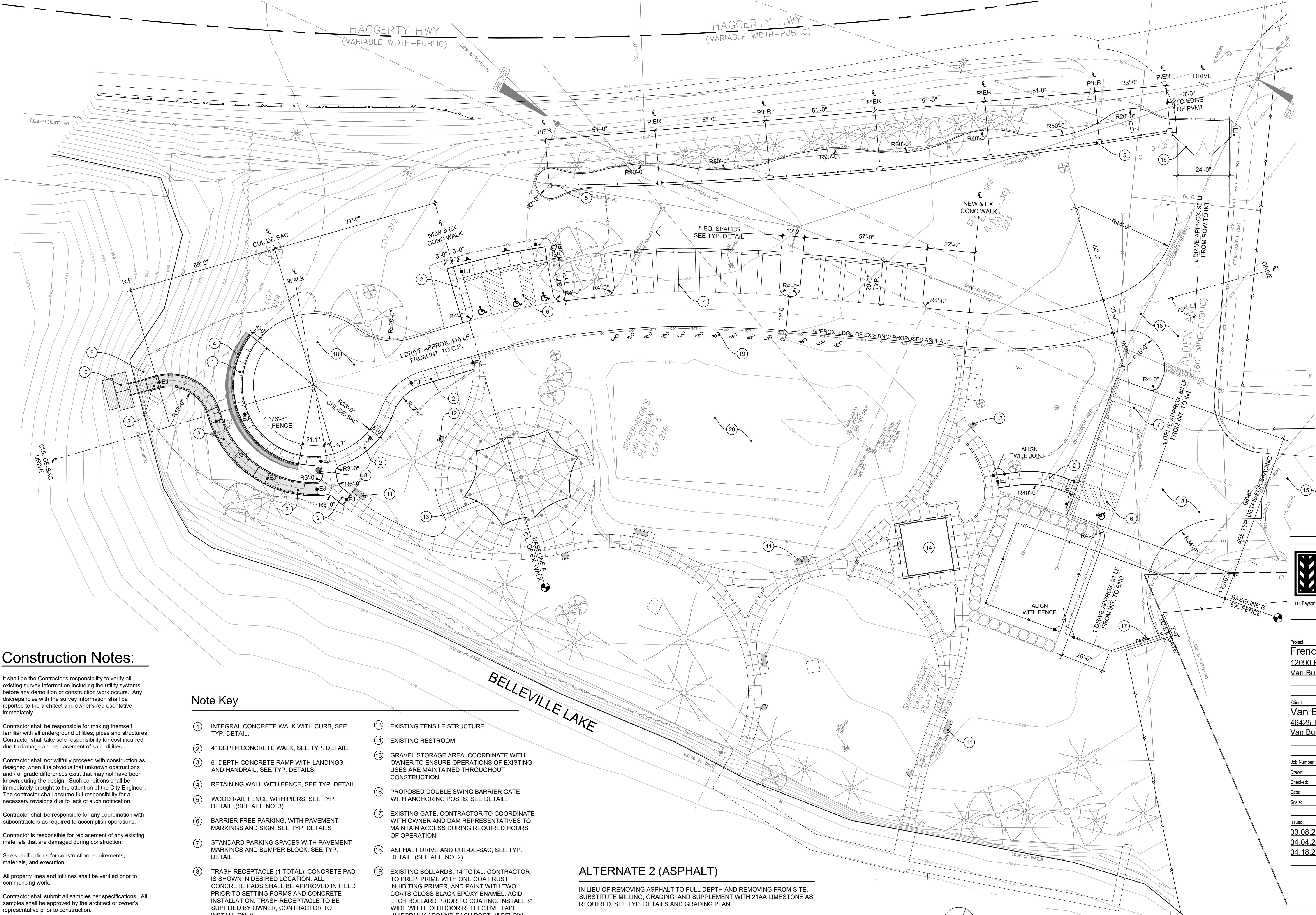
SURVEY PROVIDED BY:  
PEA  
7927 Nemco Way, Ste.115  
Brighton, MI 48116  
517.546.8583

JOB NUMBER: 2020-0163  
DATED: JUNE 8, 2020

Sheet:  
**Demolition Plan**

Sheet Number:  
**L-2**  
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## Construction Notes:

It shall be the Contractor's responsibility to verify all existing survey information including the utility systems before any demolition or construction work occurs. Any discrepancies with the survey information shall be reported to the architect and owner's representative immediately.

Contractor shall be responsible for making themselves familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for cost incurred due to damage and replacement of said utilities.

Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and / or grade differences exist that may not have been known during the design. Such conditions shall be immediately brought to the attention of the City Engineer. The contractor shall assume full responsibility for all necessary revisions due to lack of such notification.

Contractor shall be responsible for any coordination with subcontractors as required to accomplish operations.

Contractor is responsible for replacement of any existing materials that are damaged during construction.

See specifications for construction requirements, materials, and execution.

All property lines and lot lines shall be verified prior to commencing work.

Contractor shall submit all samples per specifications. All samples shall be approved by the architect or owner's representative prior to construction.

Dimensional flexibility shall be within plant beds only.

Contractor shall coordinate all site layout with the Landscape Architect and report any dimensional discrepancies prior to construction.

Handicapped ramps shall meet all current barrier free design codes.

## Note Key

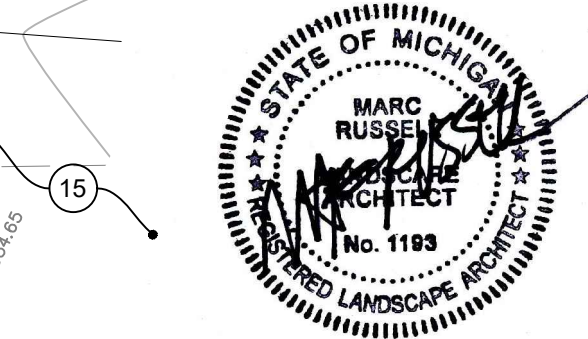
- |    |                                                                                                                                                                                                                                             |    |                                                                                                                                                                                                                                            |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | INTEGRAL CONCRETE WALK WITH CURB, SEE TYP. DETAIL.                                                                                                                                                                                          | 13 | EXISTING TENSILE STRUCTURE.                                                                                                                                                                                                                |
| 2  | 4" DEPTH CONCRETE WALK, SEE TYP. DETAIL.                                                                                                                                                                                                    | 14 | EXISTING RESTROOM.                                                                                                                                                                                                                         |
| 3  | 6" DEPTH CONCRETE RAMP WITH LANDINGS AND HANDRAIL, SEE TYP. DETAILS.                                                                                                                                                                        | 15 | GRAVEL STORAGE AREA. COORDINATE WITH OWNER TO ENSURE OPERATIONS OF EXISTING USES ARE MAINTAINED THROUGHOUT CONSTRUCTION.                                                                                                                   |
| 4  | RETAINING WALL WITH FENCE, SEE TYP. DETAIL                                                                                                                                                                                                  | 16 | PROPOSED DOUBLE SWING BARRIER GATE WITH ANCHORING POSTS. SEE DETAIL.                                                                                                                                                                       |
| 5  | WOOD RAIL FENCE WITH PIERS, SEE TYP. DETAIL. (SEE ALT. NO. 3)                                                                                                                                                                               | 17 | EXISTING GATE. CONTRACTOR TO COORDINATE WITH OWNER AND DAM REPRESENTATIVES TO MAINTAIN ACCESS DURING REQUIRED HOURS OF OPERATION.                                                                                                          |
| 6  | BARRIER FREE PARKING, WITH PAVEMENT MARKINGS AND SIGN. SEE TYP. DETAILS                                                                                                                                                                     | 18 | ASPHALT DRIVE AND CUL-DE-SAC, SEE TYP. DETAIL. (SEE ALT. NO. 2)                                                                                                                                                                            |
| 7  | STANDARD PARKING SPACES WITH PAVEMENT MARKINGS AND BUMPER BLOCK, SEE TYP. DETAIL.                                                                                                                                                           | 19 | EXISTING BOLLARDS, 14 TOTAL. CONTRACTOR IS SHOWN IN DESIRED LOCATION. ALL CONCRETE PADS SHALL BE APPROVED IN FIELD PRIOR TO SETTING FORMS AND CONCRETE INSTALLATION. TRASH RECEPTACLE TO BE SUPPLIED BY OWNER, CONTRACTOR TO INSTALL ONLY. |
| 8  | TRASH RECEPTACLE (1 TOTAL). CONCRETE PAD IS SHOWN IN DESIRED LOCATION. ALL CONCRETE PADS SHALL BE APPROVED IN FIELD PRIOR TO SETTING FORMS AND CONCRETE INSTALLATION. TRASH RECEPTACLE TO BE SUPPLIED BY OWNER, CONTRACTOR TO INSTALL ONLY. | 20 | APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED.                                                                                     |
| 9  | FUTURE RETAINING/ SEA WALL.                                                                                                                                                                                                                 |    |                                                                                                                                                                                                                                            |
| 10 | FUTURE ACCESSIBLE FLOATING KAYAK LAUNCH.                                                                                                                                                                                                    |    |                                                                                                                                                                                                                                            |
| 11 | EXISTING BENCH, TYP.                                                                                                                                                                                                                        |    |                                                                                                                                                                                                                                            |
| 12 | EXISTING WASTE BIN, TYP.                                                                                                                                                                                                                    |    |                                                                                                                                                                                                                                            |

## ALTERNATE 2 (ASPHALT)

IN LIEU OF REMOVING ASPHALT TO FULL DEPTH AND REMOVING FROM SITE, SUBSTITUTE MILLING, GRADING, AND SUPPLEMENT WITH 21AA LESTONE AS REQUIRED. SEE TYP. DETAILS AND GRADING PLAN

## ALTERNATE 3 (HAGGERTY FRONTAGE FENCE)

IN LIEU OF PRESSURE TREATED WOOD POST WITH CEDAR RAIL FENCE, SUBSTITUTE WITH PRESSURE TREATED POST WITH COMPOSITE POST SLEEVE, COMPOSITE POST SLEEVE CAP, AND 2"x6" SQUARE EDGE RAILING.



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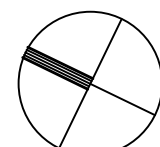
Sheet:  
**Layout Plan**

Sheet Number:  
**L-3**  
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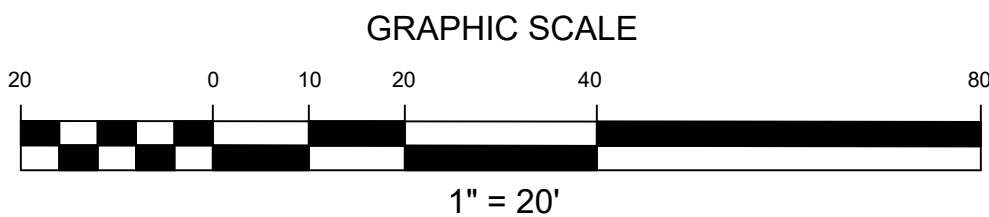
3 FULL WORKING DAYS  
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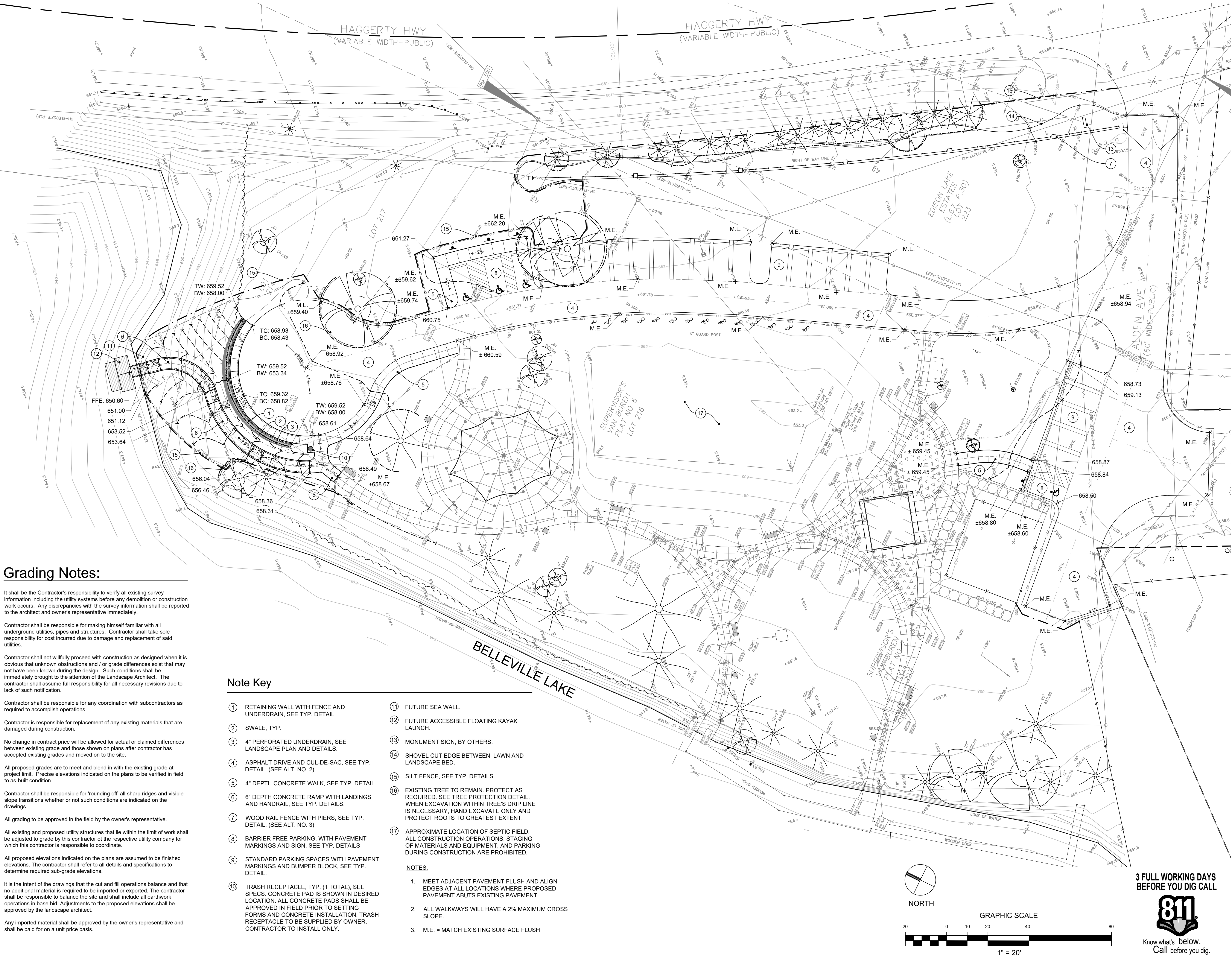
Know what's below.  
Call before you dig.



NORTH







### Grading Notes:

It shall be the Contractor's responsibility to verify all existing survey information including the utility systems before any demolition or construction work occurs. Any discrepancies with the survey information shall be reported to the architect and owner's representative immediately.

Contractor shall be responsible for making himself familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for cost incurred due to damage and replacement of said utilities.

Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and / or grade differences exist that may not have been known during the design. Such conditions shall be immediately brought to the attention of the Landscape Architect. The contractor shall assume full responsibility for all necessary revisions due to lack of such notification.

Contractor shall be responsible for any coordination with subcontractors as required to accomplish operations.

Contractor is responsible for replacement of any existing materials that are damaged during construction.

No change in contract price will be allowed for actual or claimed differences between existing grade and those shown on plans after contractor has accepted existing grades and moved on to the site.

All proposed grades are to meet and blend in with the existing grade at project limit. Precise elevations indicated on the plans to be verified in field to as-built condition.

Contractor shall be responsible for 'rounding off' all sharp ridges and visible slope transitions whether or not such conditions are indicated on the drawings.

All grading to be approved in the field by the owner's representative.

All existing and proposed utility structures that lie within the limit of work shall be adjusted to grade by this contractor at the respective utility company for which this contractor is responsible to coordinate.

All proposed elevations indicated on the plans are assumed to be finished elevations. The contractor shall refer to all details and specifications to determine required sub-grade elevations.

It is the intent of the drawings that the cut and fill operations balance and that no additional material is required to be imported or exported. The contractor shall be responsible to balance the site and shall include all earthwork operations in base bid. Adjustments to the proposed elevations shall be approved by the landscape architect.

Any imported material shall be approved by the owner's representative and shall be paid for on a unit price basis.

### Note Key

- 1 RETAINING WALL WITH FENCE AND UNDERDRAIN, SEE TYP. DETAIL
- 2 SWALE, TYP.
- 3 4" PERFORATED UNDERDRAIN, SEE LANDSCAPE PLAN AND DETAILS.
- 4 ASPHALT DRIVE AND CUL-DE-SAC, SEE TYP. DETAIL. (SEE ALT. NO. 2)
- 5 4" DEPTH CONCRETE WALK, SEE TYP. DETAIL.
- 6 6" DEPTH CONCRETE RAMP WITH LANDINGS AND HANDRAIL, SEE TYP. DETAILS.
- 7 WOOD RAIL FENCE WITH PIERS, SEE TYP. DETAIL. (SEE ALT. NO. 3)
- 8 BARRIER FREE PARKING, WITH PAVEMENT MARKINGS AND SIGN. SEE TYP. DETAILS
- 9 STANDARD PARKING SPACES WITH PAVEMENT MARKINGS AND BUMPER BLOCK, SEE TYP. DETAIL.
- 10 TRASH RECEPTACLE, TYP. (1 TOTAL), SEE SPECS. CONCRETE PAD IS SHOWN IN DESIRED LOCATION. ALL CONCRETE PADS SHALL BE APPROVED IN FIELD PRIOR TO SETTING FORMS AND CONCRETE INSTALLATION. TRASH RECEPTACLE TO BE SUPPLIED BY OWNER, CONTRACTOR TO INSTALL ONLY.

- 11 FUTURE SEA WALL.
- 12 FUTURE ACCESSIBLE FLOATING KAYAK LAUNCH.
- 13 MONUMENT SIGN, BY OTHERS.
- 14 SHOVEL CUT EDGE BETWEEN LAWN AND LANDSCAPE BED.
- 15 SILT FENCE, SEE TYP. DETAILS.
- 16 EXISTING TREE TO REMAIN, PROTECT AS REQUIRED. SEE TREE PROTECTION DETAIL. WHEN EXCAVATION WITHIN TREE'S DRIP LINE IS NECESSARY, HAND EXCAVATE ONLY AND PROTECT ROOTS TO GREATEST EXTENT.
- 17 APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED.

#### NOTES:

1. MEET ADJACENT PAVEMENT FLUSH AND ALIGN EDGES AT ALL LOCATIONS WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT.
2. ALL WALKWAYS WILL HAVE A 2% MAXIMUM CROSS SLOPE.
3. M.E. = MATCH EXISTING SURFACE FLUSH



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Sheet:  
**Grading Plan**

Sheet Number: **L-4**  
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BEFORE YOU DIG CALL**



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## Planting Notes:

The Contractor shall verify all rights of way, easements, property lines and limits of work, etc. prior to commencing work.

The Contractor shall be responsible for contacting and coordinating with all pertinent utility companies 72 hours in advance of any digging to make them familiar with all underground utilities, pipes and structures. The Contractor shall take sole responsibility for any cost incurred of said utilities.

The Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or grade differences exist. Such conditions shall be immediately brought to the attention of the owner's representative and/or Landscape Architect. The Contractor shall assume full responsibility for all necessary revisions due to failure to give such notification.

Any discrepancies between dimensioned layout and actual field conditions shall be reported to the Owner's representative and Landscape Architect. Failure to make such discrepancies known will result in the Contractor's responsibility and liability for any changes and associated cost.

The Contractor shall be responsible for any coordination with subcontractors as required to accomplish construction installation operations.

Do not scale drawings. Refer to written dimensions only.

The Contractor shall provide and maintain positive surface drainage.

The Contractor shall be responsible for any existing materials that are damaged during construction.

See specifications, plant list and planting details for planting requirements, materials and execution

All trees to have clay loam or clay balls - trees with sand balls shall not be accepted.

All trees to be approved by Owner's Representative and/or Landscape Architect prior to delivery to the site. Any trees delivered to the site not previously approved may be rejected and are the sole responsibility of the Contractor.

Final location of all plant material shall be subject to the approval of the Landscape Architect.

The Contractor to verify percolation of all planting pits prior to installation of plant material.

The Contractor shall place 3" depth shredded bark mulch in all planting beds, unless otherwise indicated.

## Note Key

- EXISTING TREE TO REMAIN, TYP.
- DECIDUOUS TREE PLANTING, SEE TYP. DETAIL.
- SHRUB PLANTINGS, SEE TYP. DETAIL.
- PERENNIAL PLANTINGS, SEE TYP. DETAIL.
- SHOVEL CUT EDGE BETWEEN LAWN AND LANDSCAPE BED.
- SODDED LAWN ON 4" DEPTH TOPSOIL, TYP. (SEE ALT. NO. 1)
- RESTORE DISTURBED AREA WITH SODDED LAWN ON 4" DEPTH TOPSOIL UNLESS SPECIFIED OTHERWISE TO LIMITS OF RESTORED ASPHALT SURFACE RESULTING FROM CONSTRUCTION OPERATIONS.
- RESTORE DISTURBED GRAVEL SURFACE TO 6" DEPTH 21AA STONE BASE, COMPACT TO 95% MOD. PROCTOR.
- EXISTING NATIVE SEED AREA, PROTECT NATIVE SEEDING AREAS AS REQUIRED THROUGHOUT CONSTRUCTION.
- 4" PERFORATED UNDERDRAIN, SEE RETAINING WALL DETAIL.
- SILT FENCE, SEE TYP. DETAIL.
- NATIVE SEEDING AREA BY OTHERS. DO NOT TOPSOIL AREA.
- APPROXIMATE LOCATION OF SEPTIC FIELD, ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED.

## NOTES:

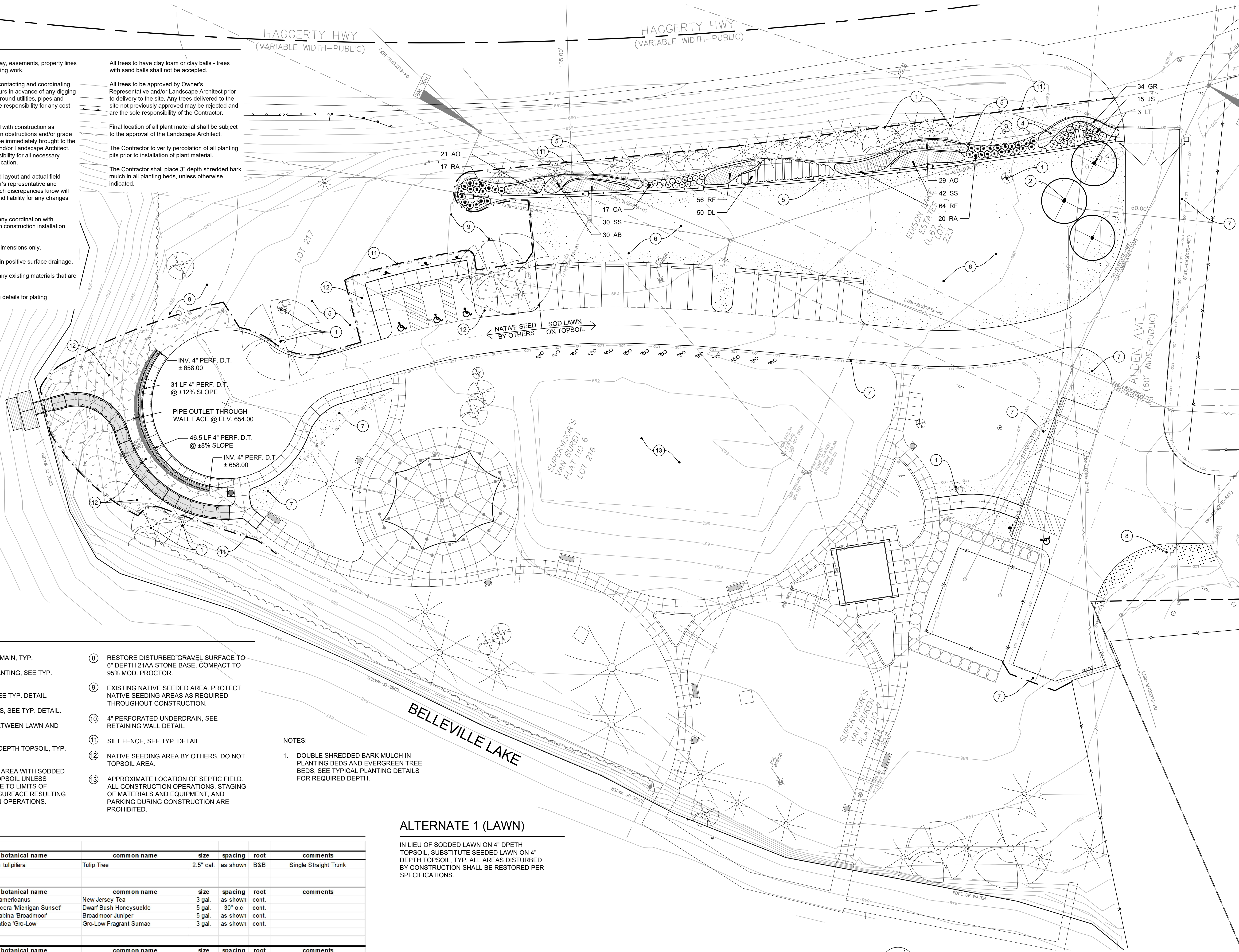
- DOUBLE SHREDDED BARK MULCH IN PLANTING BEDS AND EVERGREEN TREE BEDS, SEE TYPICAL PLANTING DETAILS FOR REQUIRED DEPTH.

## Plant List

| Trees                    |      |                                       |                             |           |          |       |                       |
|--------------------------|------|---------------------------------------|-----------------------------|-----------|----------|-------|-----------------------|
| sym.                     | qty. | botanical name                        | common name                 | size      | spacing  | root  | comments              |
| LT                       | 3    | Liriodendron tulipifera               | Tulip Tree                  | 2.5" cal. | as shown | B&B   | Single Straight Trunk |
| Shrubs                   |      |                                       |                             |           |          |       |                       |
| sym.                     | qty. | botanical name                        | common name                 | size      | spacing  | root  | comments              |
| CA                       | 17   | Ceanothus americanus                  | New Jersey Tea              | 3 gal.    | as shown | cont. |                       |
| DL                       | 50   | Dienella ionifera 'Michigan Sunset'   | Dwarf Bush Honeysuckle      | 5 gal.    | 30" o.c. | cont. |                       |
| JS                       | 15   | Juniperus sabina 'Broadmoor'          | Broadmoor Juniper           | 5 gal.    | as shown | cont. |                       |
| RA                       | 37   | Rhus aromatica 'Gro-Low'              | Gro-Low Fragrant Sumac      | 3 gal.    | as shown | cont. |                       |
| Ornamental Grasses       |      |                                       |                             |           |          |       |                       |
| sym.                     | qty. | botanical name                        | common name                 | size      | spacing  | root  | comments              |
| SS                       | 72   | Schizachyrium scoparium 'Blue Heaven' | Blue Heaven Little Bluestem | 3 gal.    | 24" o.c. | cont. |                       |
| Perennials & Groundcover |      |                                       |                             |           |          |       |                       |
| sym.                     | qty. | botanical name                        | common name                 | size      | spacing  | root  | comments              |
| AB                       | 30   | Amsonia 'Blue Ice'                    | Blue Star                   | 1 gal.    | 24" o.c. | cont. |                       |
| AO                       | 50   | Aster oblongifolium 'October Skies'   | October Skies Aster         | 1 gal.    | 24" o.c. | cont. |                       |
| GR                       | 34   | Geranium 'Rozanne'                    | Rozanne's Blue Cranesbill   | 1 gal.    | 24" o.c. | cont. |                       |
| RF                       | 120  | Rudbeckia fulgida 'Goldsturm'         | Black Eyed Susan            | 1 gal.    | 18" o.c. | cont. |                       |

## ALTERNATE 1 (LAWN)

IN LIEU OF SODDED LAWN ON 4" DPETH TOPSOIL, SUBSTITUTE SEEDED LAWN ON 4" DEPTH TOPSOIL, TYP. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED PER SPECIFICATIONS.



Project:  
**French Landing - Phase II**  
12090 Haggerty Road  
Van Buren Charter Township

Client:  
**Van Buren Township**  
46425 Tyler Road  
Van Buren Twp, MI 48111

Job Number: **V05-221**  
Drawn: **JBG**  
Checked: **MRR**  
Date: **3.8.22**  
Scale: **1" = 20' - 0"**

Issued:  
**03.08.22 REVIEW**  
**04.04.22 OWNER REVIEW**  
**04.18.22 ISSUED FOR BIDS**

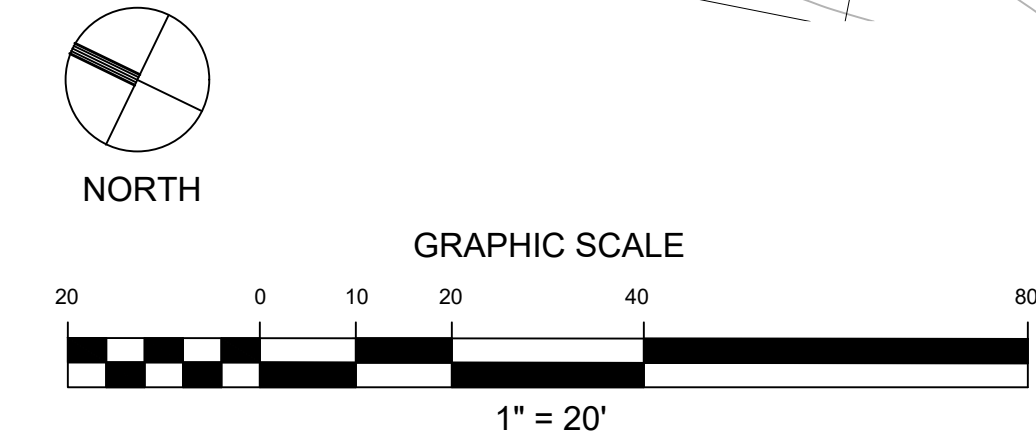
Sheet:  
**Landscape Plan**

Sheet Number: **L-5**  
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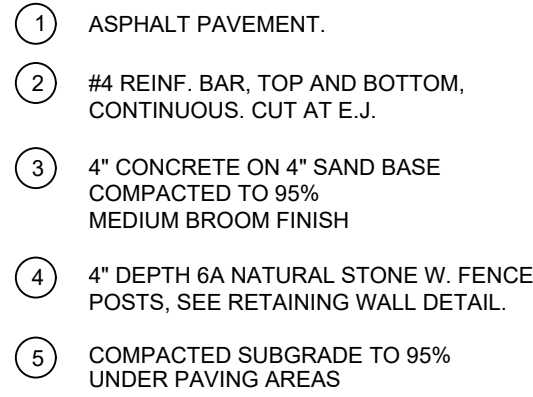
**3 FULL WORKING DAYS  
BEFORE YOU DIG CALL**



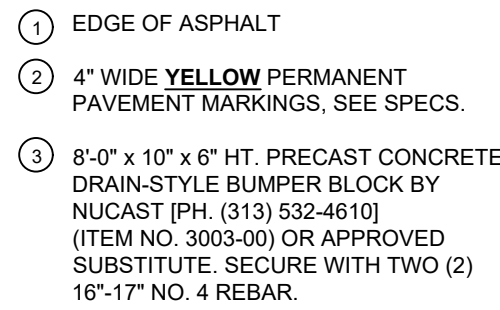
Know what's below.  
Call before you dig.



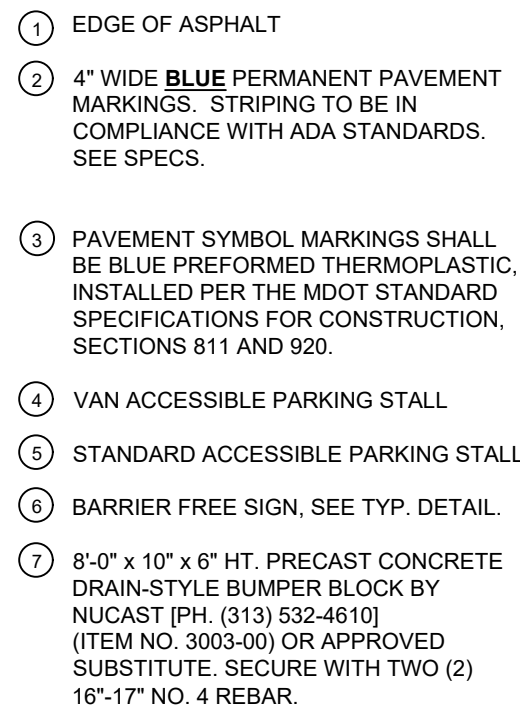




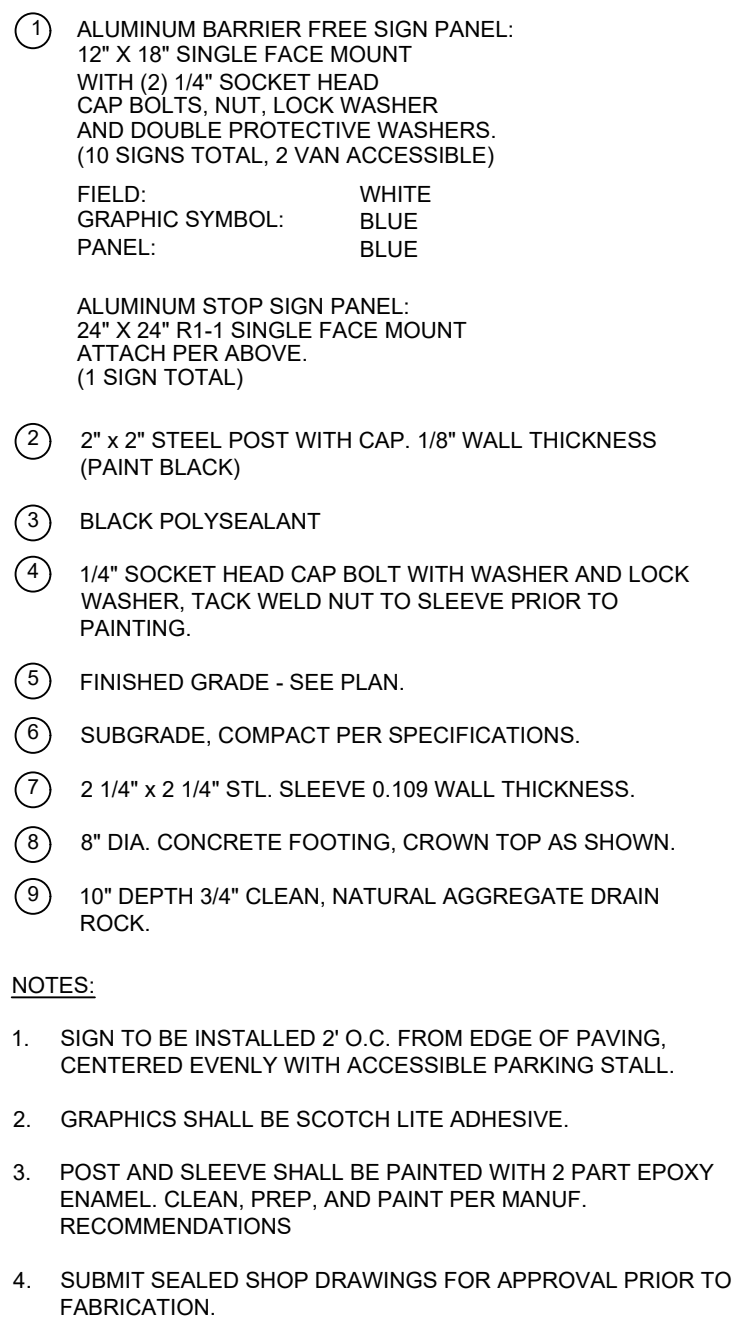
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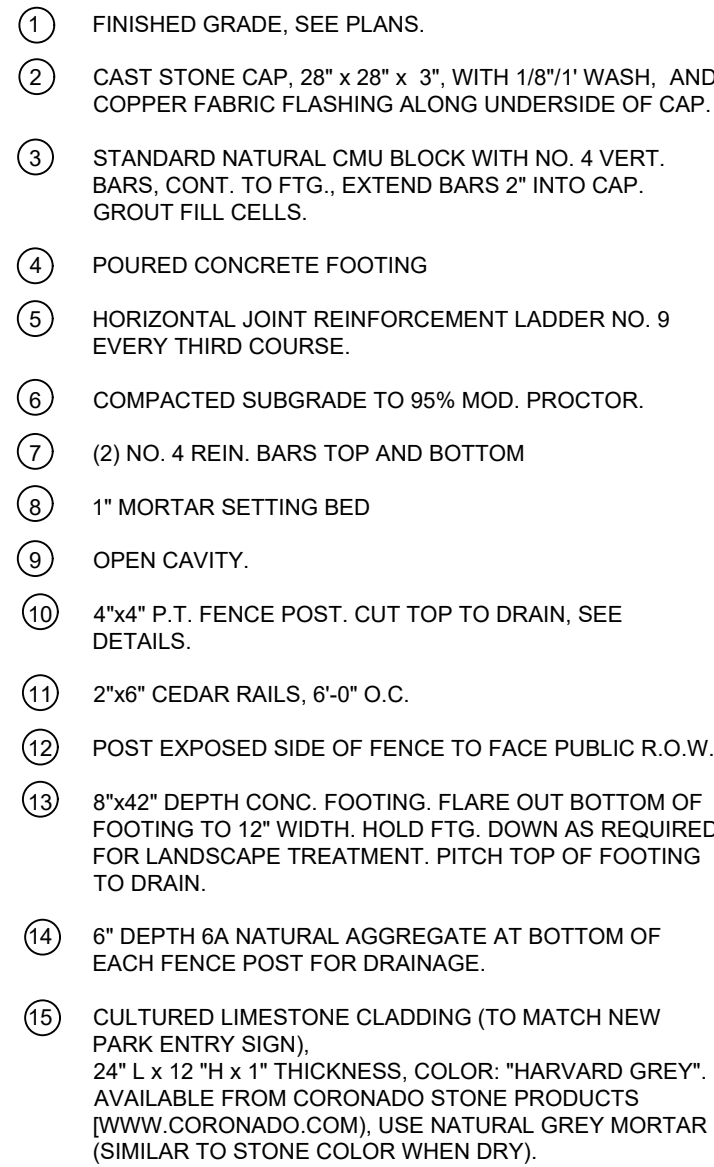
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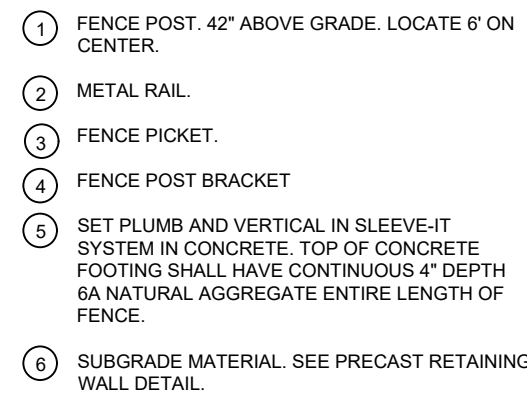
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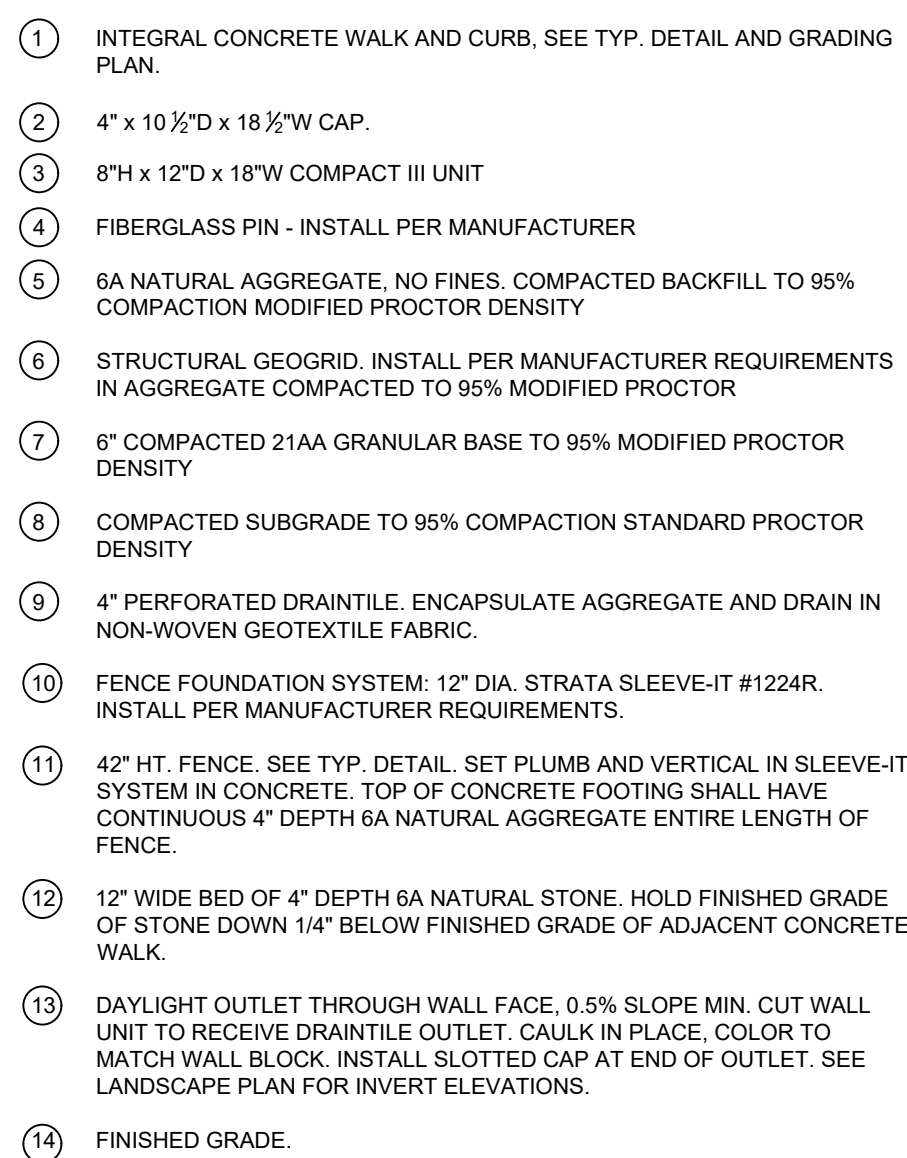
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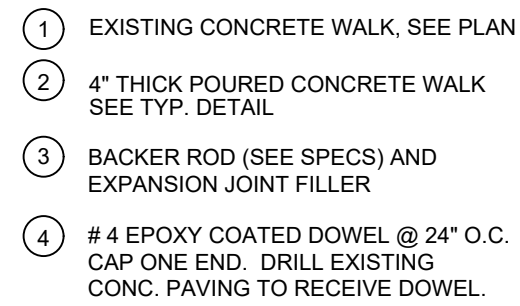
1-3 SCALE: 3/4" = 1'-0"



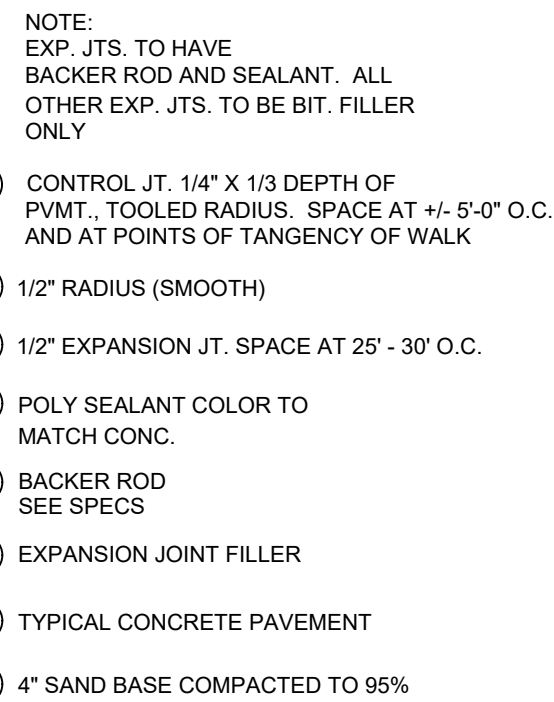
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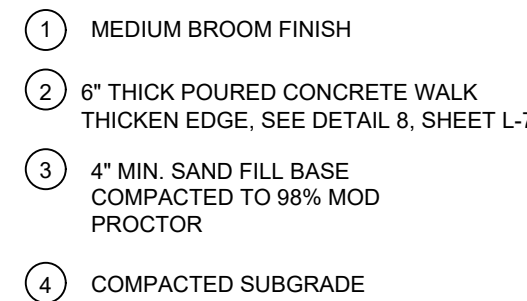
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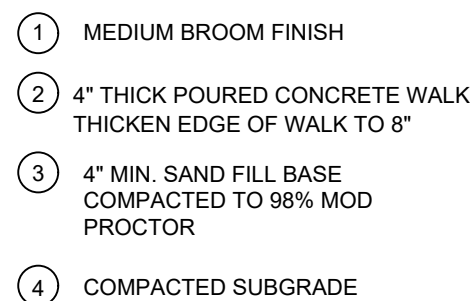
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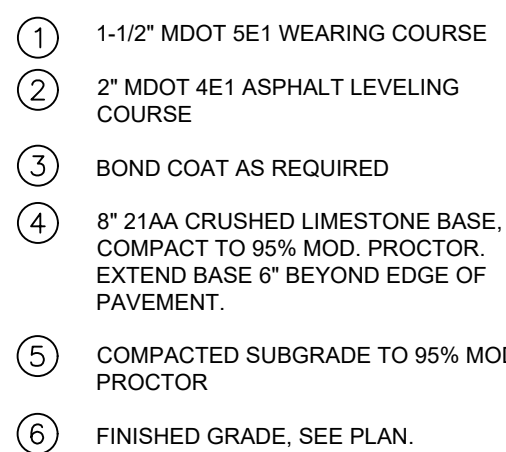
1-3 NOT TO SCALE



SCALE: 1" = 1'-0"



SCALE: 1" = 1'-0"



SCALE: 2" = 1'-0"



Client: Van Buren Township  
46425 Tyler Road  
Van Buren Twp, MI 48111

Drawn: JBG

Checked. MRK

Scale: 1" = 20' - 0"

03 08 22 REVIEW

04.04.22      OWNER REVIEW

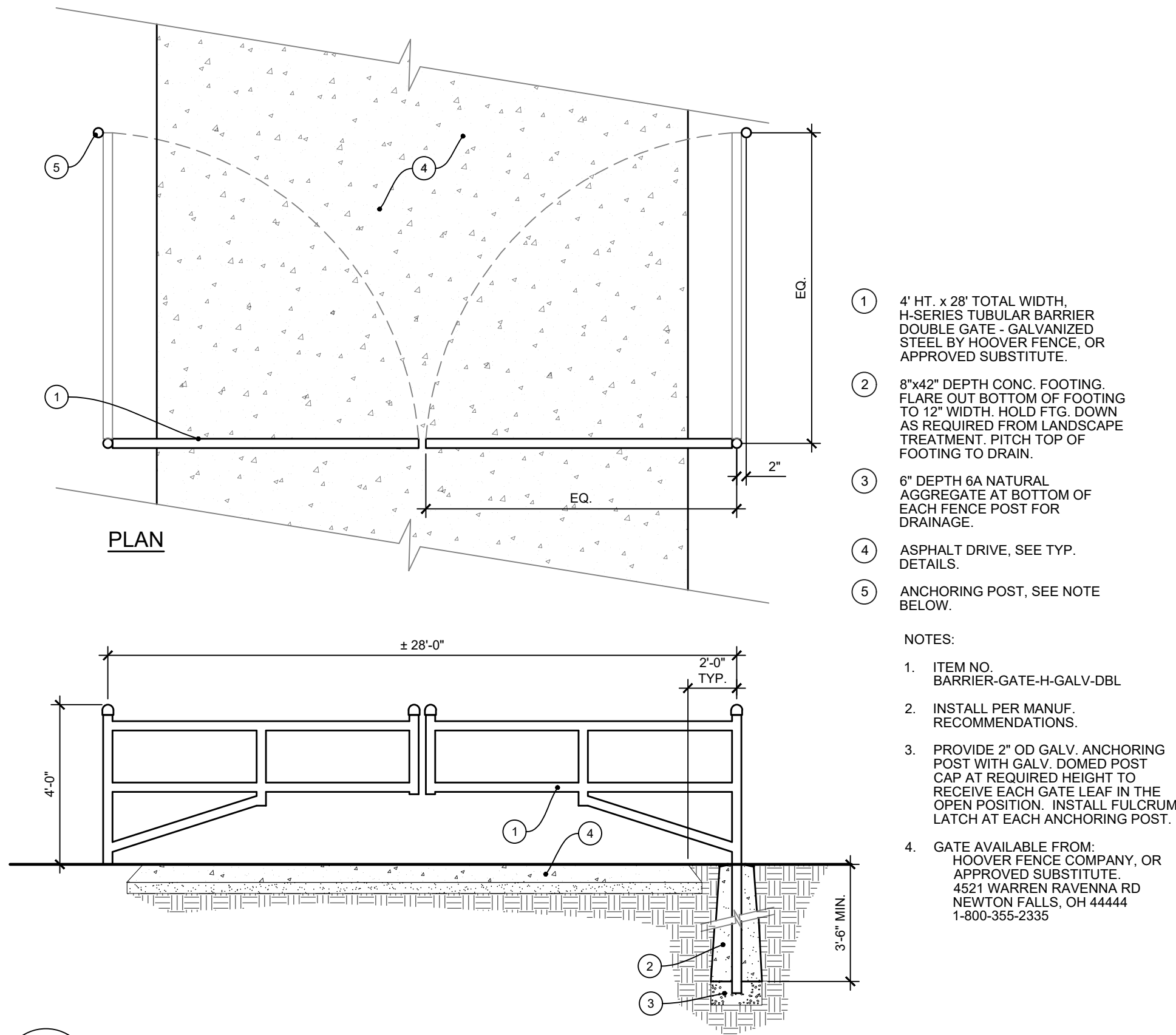
04.18.22 ISSUED FOR BIDS

Sheet: Landscape Details

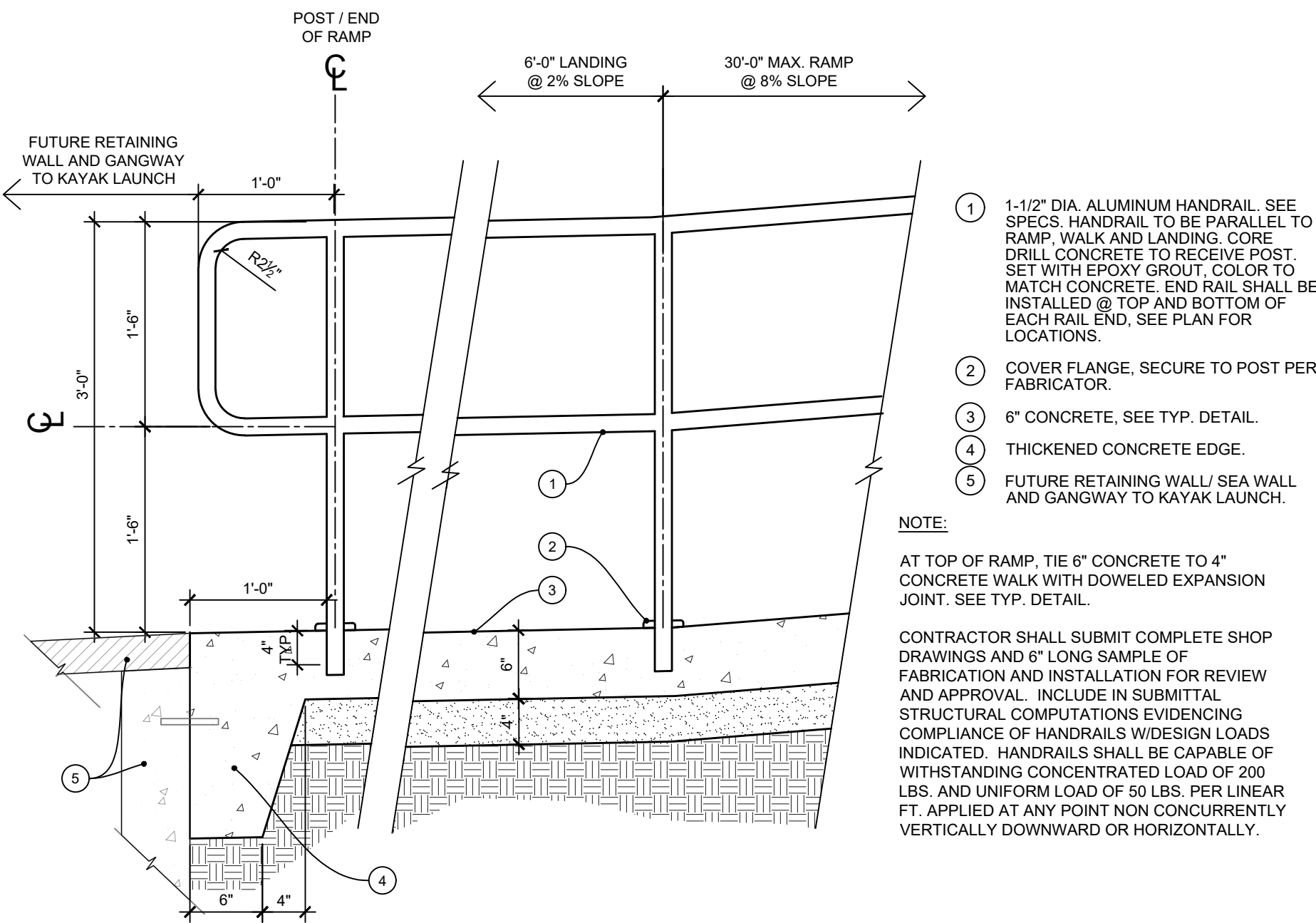
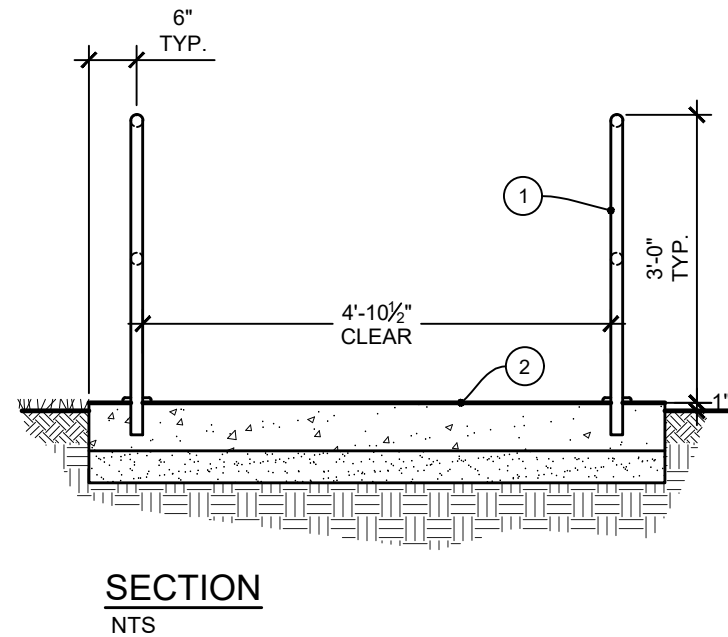
Sheet Number: **L-6**

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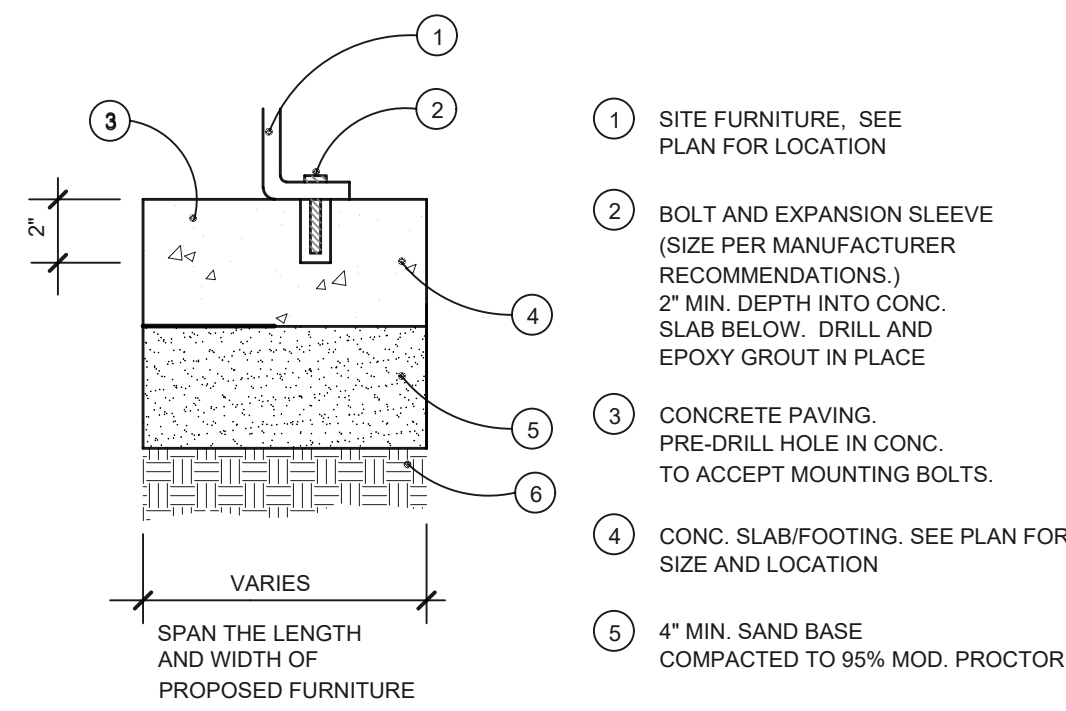




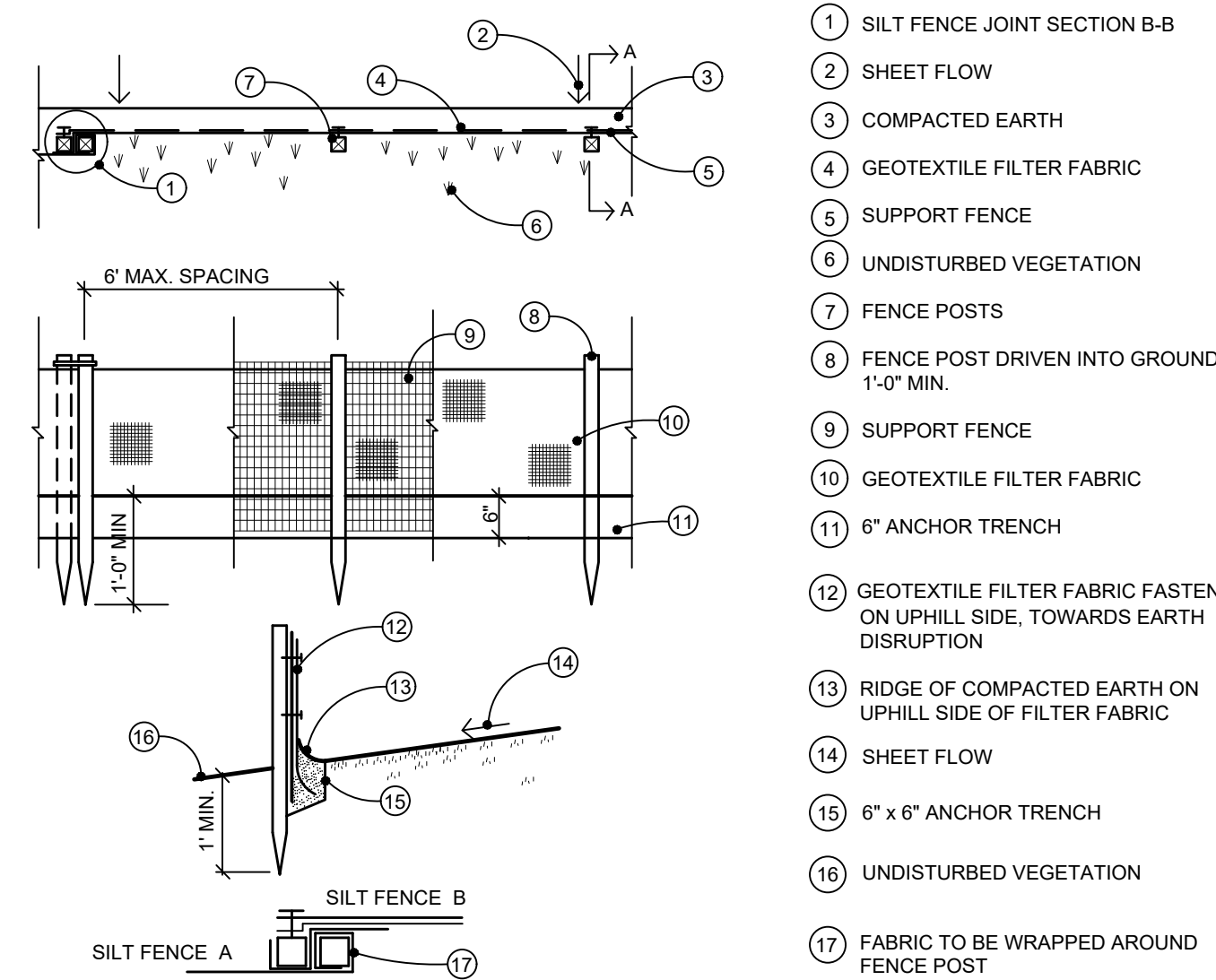
9 SWING BARRIER GATE



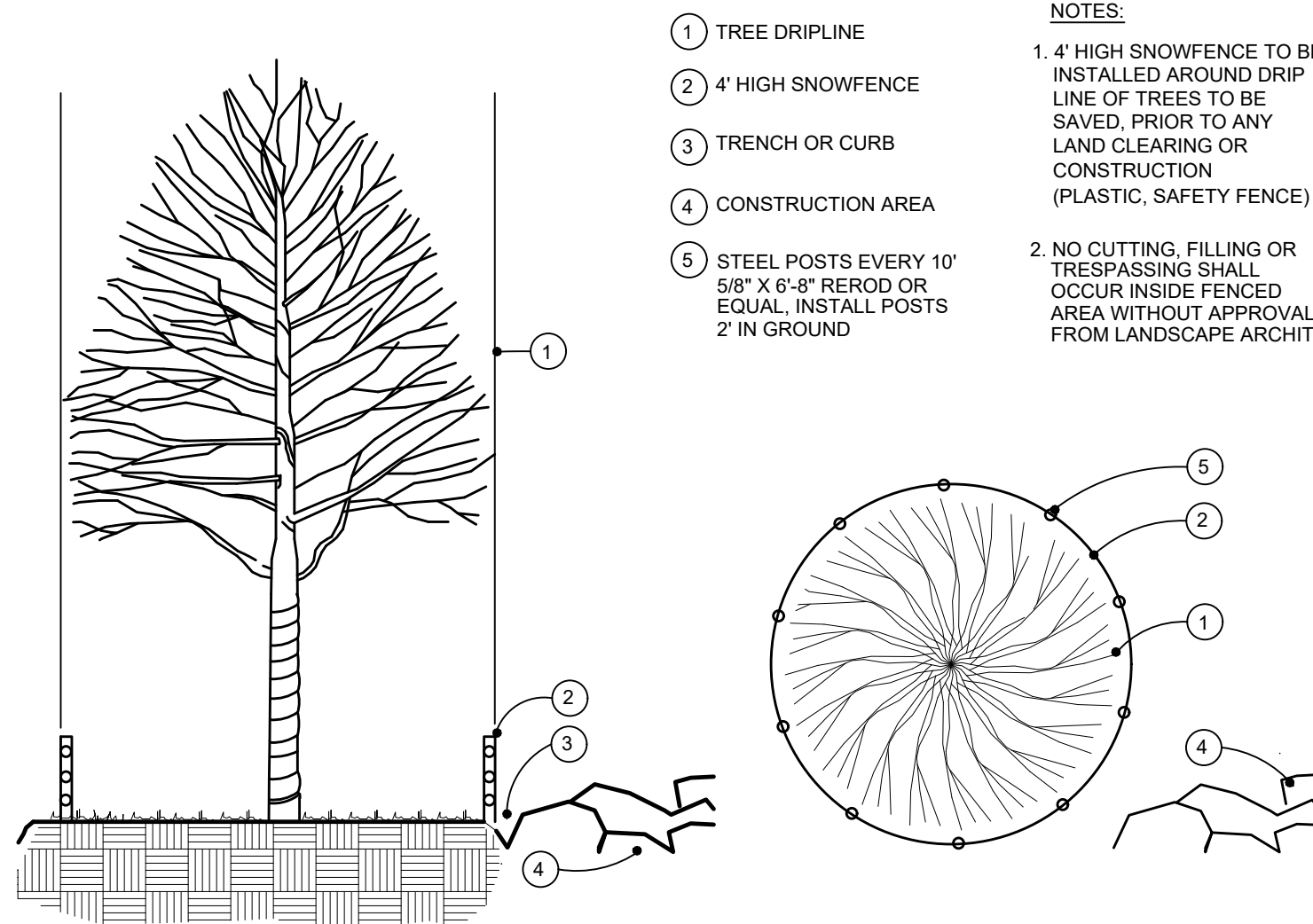
8 RAMP HANDRAIL ELEVATION



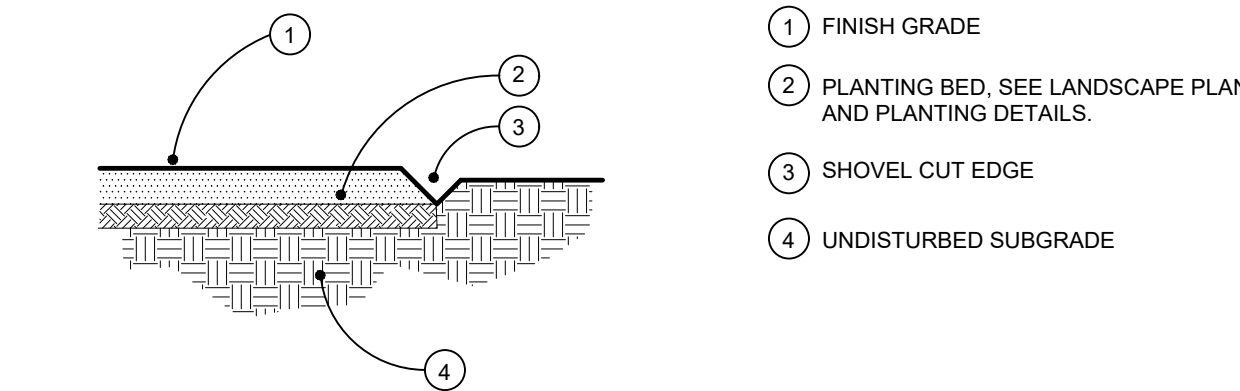
7 TYPICAL FURNITURE INSTALLATION



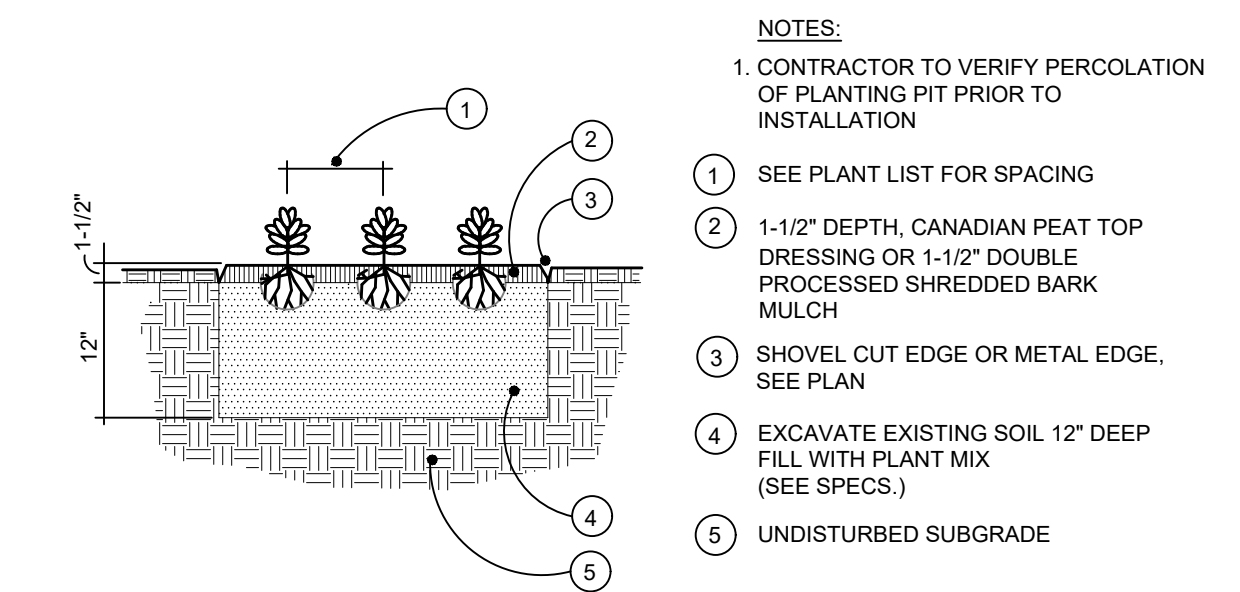
6 SILT FENCE DETAIL



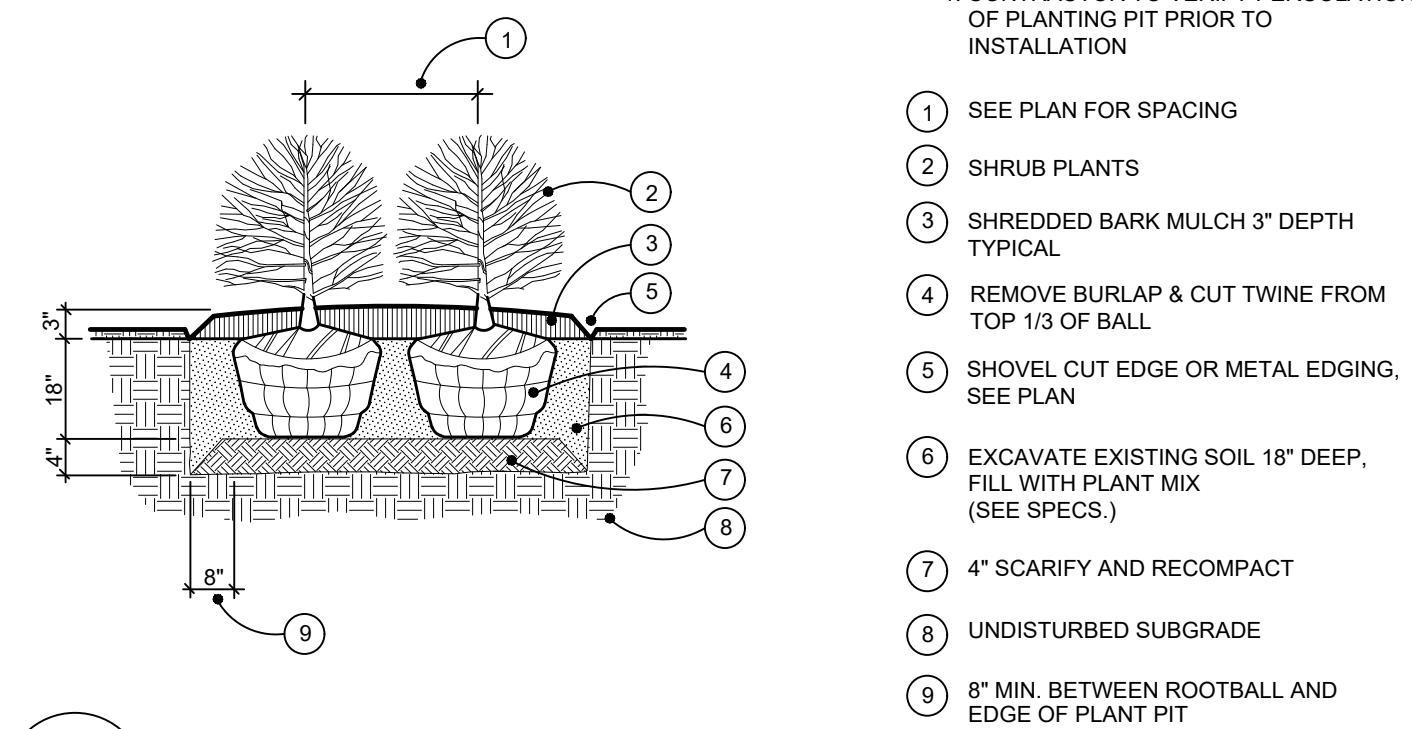
5 TREE PROTECTION DETAIL



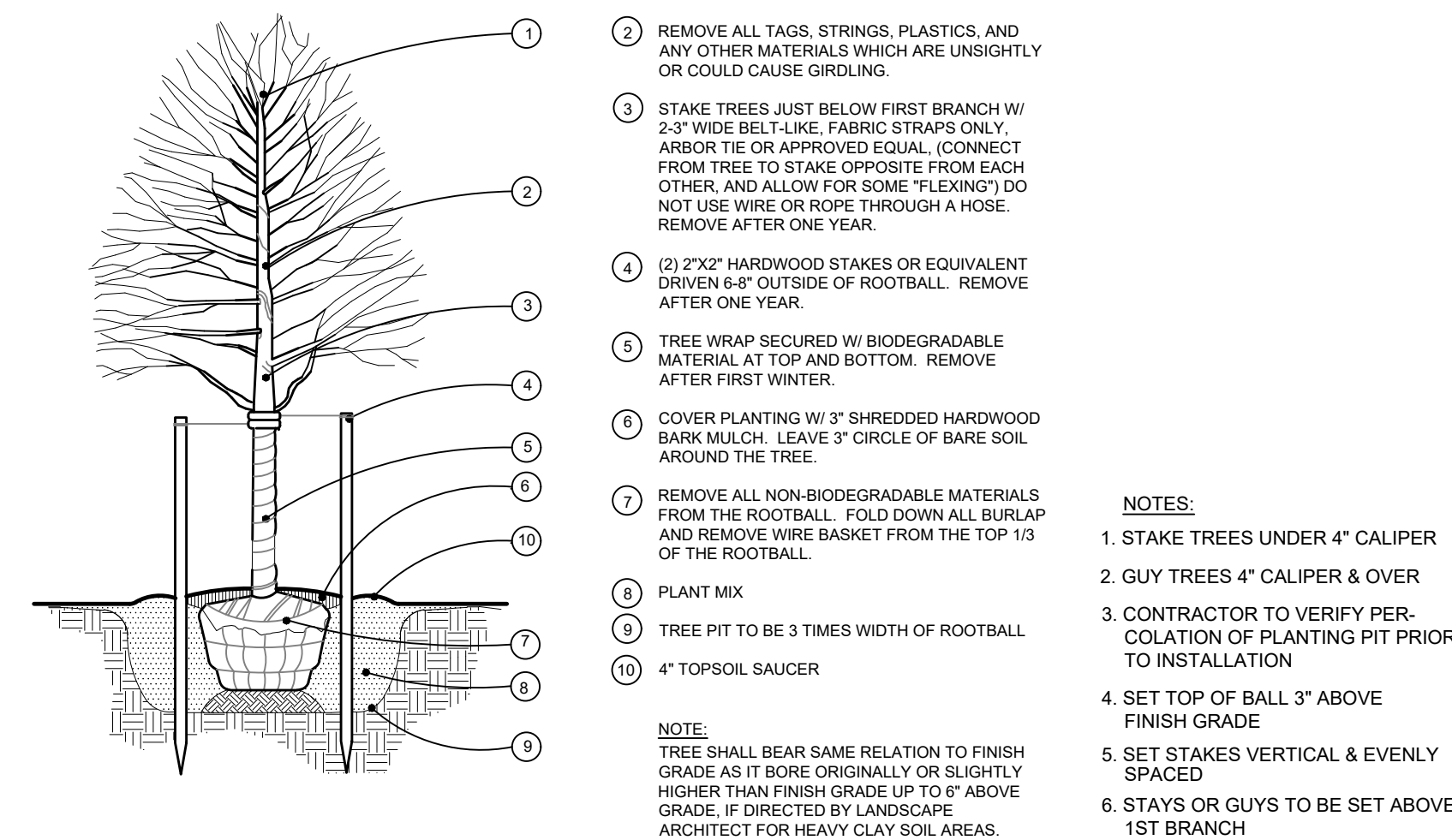
4 SHOVEL CUT EDGE



3 PERENNIAL/GROUNDCOVER PLANTING DETAIL



2 SHRUB PLANTING DETAIL



1 DECIDUOUS TREE PLANTING DETAIL



Project: French Landing - Phase II  
12090 Haggerty Road  
Van Buren Charter Township

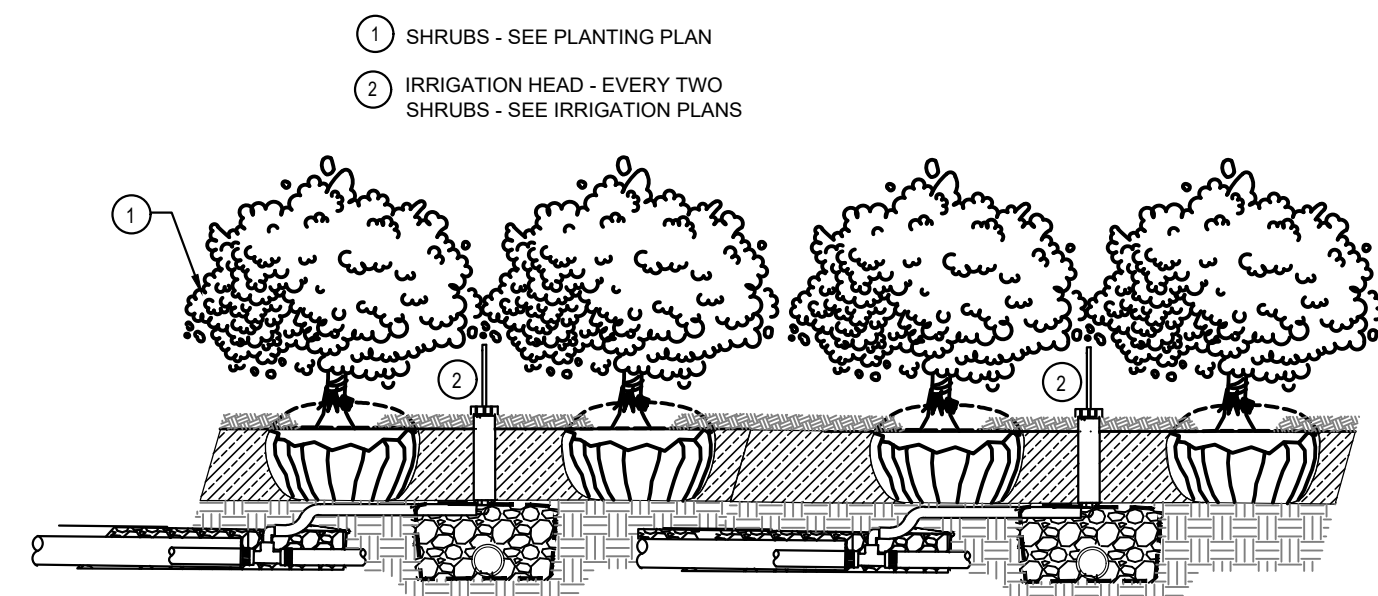
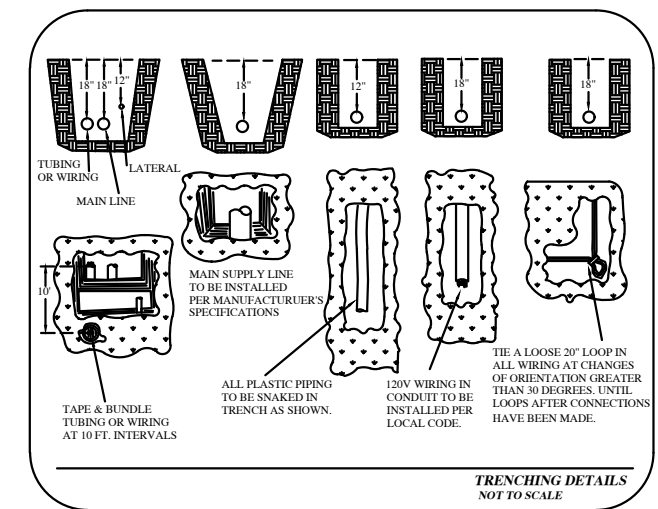
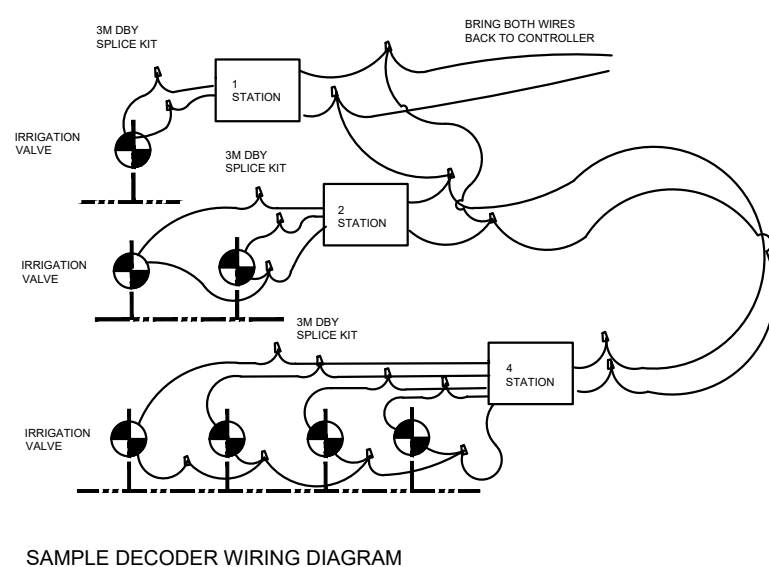
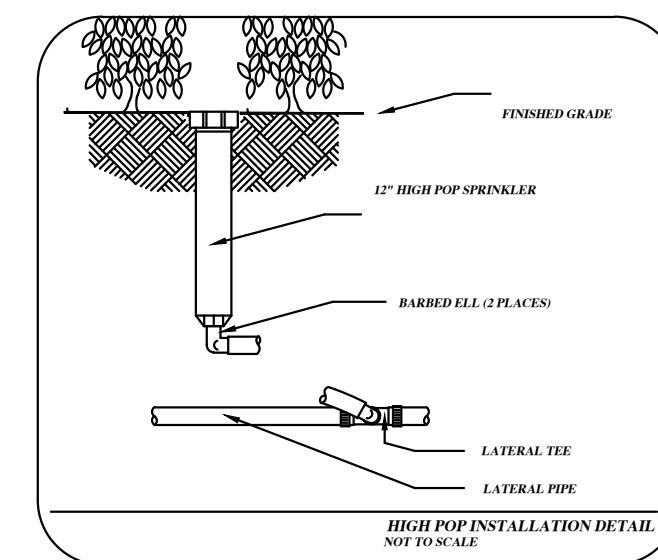
Client: Van Buren Township  
46425 Tyler Road  
Van Buren Twp, MI 48111

Job Number: V05-221  
Drawn: JBG  
Checked: MRR  
Date: 3.8.22  
Scale: 1" = 20' - 0"

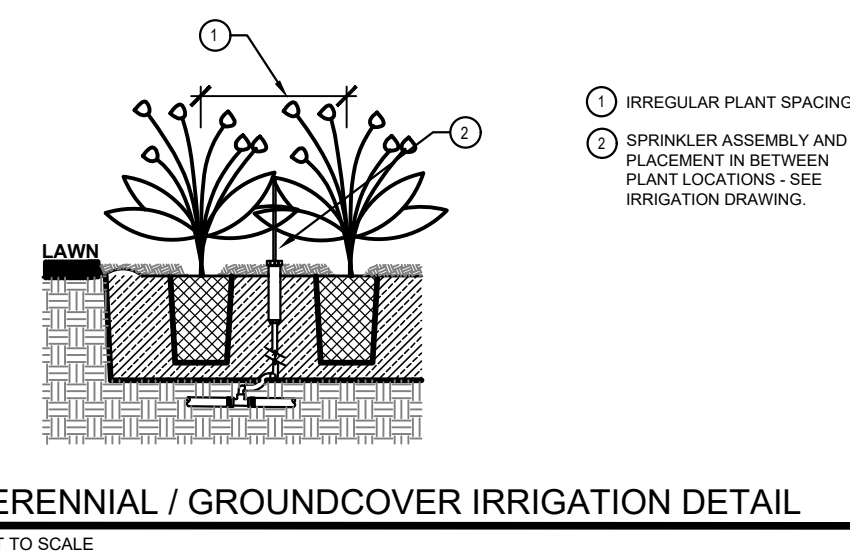
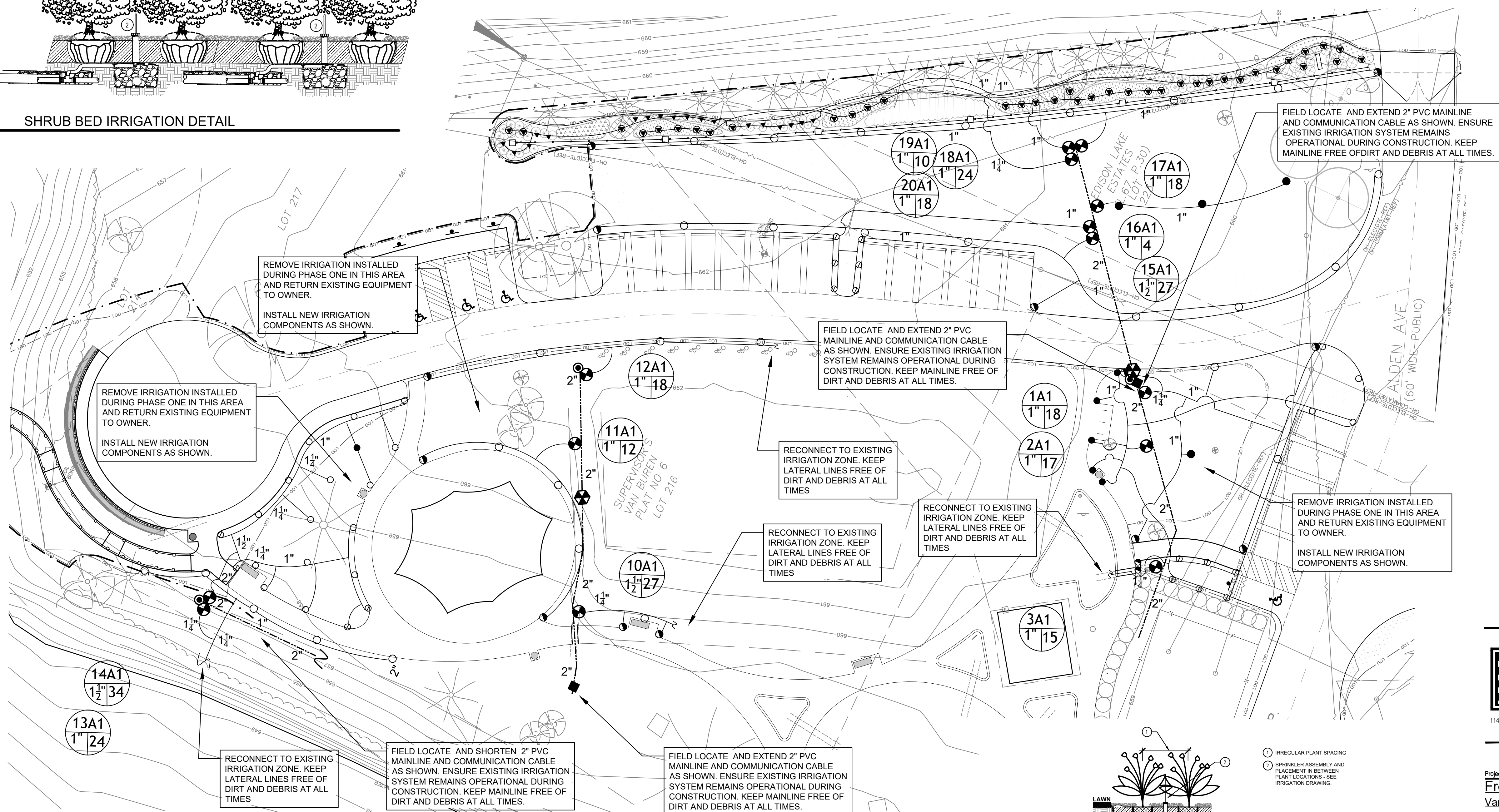
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04.04.22 OWNER REVIEW  
04.18.22 ISSUED FOR BIDS

Sheet: Landscape Details





## SHRUB BED IRRIGATION DETAIL



|                 |                                   |
|-----------------|-----------------------------------|
| PIPE SIZE CHART |                                   |
| 0-12 GPM =      | 1" DIAMETER POLYETHYLENE PIPE     |
| 12-24 GPM =     | 1 1/4" DIAMETER POLYETHYLENE PIPE |
| 24-30 GPM =     | 1 1/2" DIAMETER POLYETHYLENE PIPE |
| 30-60 GPM =     | 2" DIAMETER POLYETHYLENE PIPE     |



**LIQUID ASSETS**

IRRIGATION DESIGN &  
WATER MANAGEMENT

4843 Kittery NW  
Comstock Park, Michigan 49321  
Tel. (248) 789-0330  
email: [abarnes@lqdassets.org](mailto:abarnes@lqdassets.org)  
[www.lqdassets.org](http://www.lqdassets.org)

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**RUSSELL DESIGN**  
LANDSCAPE ARCHITECTURE  
DESIGN ■ ■ ■ PLANNING

114 Rayson Street Suite 2A   Northville, MI 48167   P. 248.374.3222

Project: French Landing - Phase II  
Van Buren Charter Township

Client: Van Buren Township  
46425 Tyler Road  
Van Buren Twp, MI 48111

|             |               |
|-------------|---------------|
| Job Number: | V05-221       |
| Drawn:      | AJB           |
| Checked:    | MRR           |
| Date:       | 3.8.22        |
| Scale:      | 1" = 20' - 0" |

|          |                 |
|----------|-----------------|
| Issued:  |                 |
| 03.08.22 | REVIEW          |
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Sheet: Irrigation Plan & Details

Sheet Number: **IR-1**

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NOTES:

1. Refer to the specifications for installation details and descriptions, as well as, construction methods which will be accepted.
2. All work shall be in compliance with all local, state, and federal codes and ordinances.
3. All electrical connections shall be made using 3m DBY-6 splice kits.
4. All control wiring downstream of the controller shall be HUNTER IDWIRE UL approved for direct bury.
5. All polyethylene lateral pipe clamps shall be stainless steel worm gear type clamps. Lateral pipes 1-1/2" or larger shall be double clamped.
6. Pipe routing is schematic. All heads are to be field adjusted to within 2' to take into consideration any obstruction. Final head placements are subject to the landscape architects approval.
7. All sprinkler heads should be mounted on 2 elbow poly swing joints as specified.
8. Contractor to verify final controller location with owner's authorized representative prior to installation.
9. All pipe not sized downstream of control valve is 1".
10. All sleeves shall be PVC SDR 21 (see specifications).
11. Irrigation contractor's point of connection to water source shall be as noted on this sheet.
12. All pipe and connect to indicated water source. All pipe installed above grade shall be copper type "M".
13. 120v power to the controller locations should be provided others. Coordinate with owner's representative. Hardwire controller directly to nearest circuit panel. Place all wires in conduit per code.
14. Design pressure does not take into account seasonal supply fluctuations. Periods of drought may cause temporary pressure losses to the city water supply resulting in inadequate irrigation system performance. Irrigation design is based on normal weather conditions and typical municipal water supply abilities.
15. Irrigation contractor shall be responsible for determining and maintaining the irrigation schedule during the project construction and throughout the length of the warranty period.
16. The irrigation schedule shall deliver 1" of precipitation per week +/- natural rainfall quantities for turf grass.
17. Landscape material shall receive adjusted amounts of precipitation to maintain proper plant health.
18. Landscape and turf grass shall be irrigated separately.
19. Rotors and spray zones may not be combined to operate at the same time.
20. When specified, follow manufacturer's product recommendations concerning proper installation of water flow sensors. Allow proper straight pipe distances before and after flow sensors.

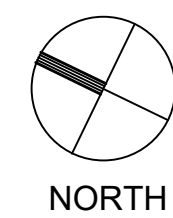
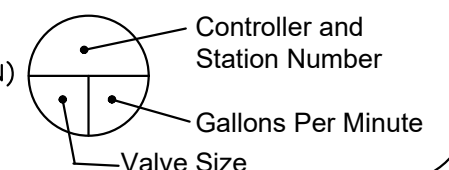
## IRRIGATION LEGEND:

Hunter

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|  FIXED SPRAY POP-UP (12")<br> 10 Series  12 Series  15 Series  Strip Series              | PROS-12-PRS40            |
|  FIXED SPRAY POP-UP (12") w/ 2' radius nozzle                                                                                                                                                                                                                                                                                                                                                                                                | PROS-12-PRS40            |
|  2' Radius Nozzle  4' Radius Nozzle                                                                                                                                                                                                                                                                                                                     |                          |
|  FIXED SPRAY POP-UP (4") w/ MPR nozzle<br> 10 Series  12 Series  15 Series  Strip Series | PROS-04-PRS40            |
|  GEAR DRIVEN ROTARY POP-UP MEDIUM RANGE<br> 1.5 GPM  3.0 GPM  6.0 GPM                                                                                                         | Hunter PGP               |
|  GEAR DRIVEN ROTARY POP-UP SHORT RANGE<br> 1.0 GPM  2.0 GPM  4.0 GPM                                                                                                          | Hunter PGJ               |
|  ELECTRIC VALVE W FILTER SENTRY w/ EZDS decoder                                                                                                                                                                                                                                                                                                                                                                                              | ICV-FS Series            |
|  QUICK COUPLER VALVE                                                                                                                                                                                                                                                                                                                                                                                                                         | HQ44-LRC                 |
|  ELECTRIC CONTROLLER                                                                                                                                                                                                                                                                                                                                                                                                                         | Existing                 |
|  ISOLATION GATE VALVE (LINE SIZE)                                                                                                                                                                                                                                                                                                                                                                                                            | Existing- Field Location |
|  POINT OF CONNECTION TO EXISTING IRRIGATION SYSTEM                                                                                                                                                                                                                                                                                                                                                                                           |                          |
|  PVC MAINLINE, SDR 26, BE,                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |
|  POLYETHYLENE PIPE, 100#, NSF APPROVED, Size as shown                                                                                                                                                                                                                                                                                                                                                                                        |                          |
|  PVC SLEEVES - SDR 26 - Size as shown                                                                                                                                                                                                                                                                                                                                                                                                        |                          |

PUMP REQUIREMENTS: 40 GPM @ 60 PSI

(CONTRACTOR TO VERIFY PSI AVAILABLE ON SITE PRIOR TO SYSTEM INSTALLATION)



NORTH



**LIQUID ASSETS**

IRRIGATION DESIGN &  
WATER MANAGEMENT

4843 Kittery NW  
Comstock Park, Michigan 49321  
Tel. (248) 789-0330  
email: [abarnes@lqdassets.org](mailto:abarnes@lqdassets.org)  
[www.lqdassets.org](http://www.lqdassets.org)

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Sheet Number: **IR-1**

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