

Drawing name: K:\IND_LEV\17004\2002.Context\McCord Square, McCordsville, IN\2 Design\CADD\plan\sheet\N\2 Working\C0.0-TITLE SHEET_IN2.dwg C0.0 Aug 25, 2023 8:31am by: Michael Holoman
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FINAL ENGINEERING PLANS

NINESTAR CONNECT

TOWN OF MCCORDSVILLE, IN 46055

UTILITY AND GOVERNING AGENCY CONTACTS

| SERVICE / JURISDICTION | COMPANY / DEPT. | ADDRESS | PHONE NUMBER | CONTACT |
|-------------------------------|--|---|----------------|-------------------|
| SANITARY SEWER | AQUA INDIANA | 5750 CASTLE CREEK PARKWAY NORTH DR. SUITE 314, INDIANAPOLIS, IN 46250 | (317) 577-1390 | JIM SHIELDS, P.E. |
| STORM SEWER | McCORDSVILLE PUBLIC WORKS | 6280 W 800 N McCORDSVILLE, IN 47201 | (317) 335-3493 | RON CRIDER |
| WATER | CITIZENS ENERGY GROUP/CWA AUTHORITY, INC | 2150 DR MARTIN LUTHER KING JR ST., INDIANAPOLIS, IN 46202 | (317) 927-4351 | BRAD HOSTETLER |
| NATURAL GAS | CENTERPOINT ENERGY | 101 WEST OHIO ST., INDIANAPOLIS, IN 46202 | (800) 227-1376 | DAVID SHERRY |
| ELECTRICITY | DUKE ENERGY SERVICE AND INSTALLATION DEPT. | 2727 CENTRAL AVE, COLUMBUS, IN 47201 | (317) 774-0246 | RYAN DAUGHERTY |
| TELEPHONE / COMMUNICATIONS | NINESTAR CONNECT | 2243 E MAIN ST GREENFIELD, IN 46140 | (317) 323-2081 | JASON WARRICK |
| STREETS | McCORDSVILLE PUBLIC WORKS | 6280 W 800 N McCORDSVILLE, IN 47201 | (317) 335-3493 | RON CRIDER |
| PLANNING AND ZONING | McCORDSVILLE PLANNING AND BUILDING DEPARTMENT | 6280 W 800 N McCORDSVILLE, IN 46055 | (317) 335-3604 | RYAN CRUM |

PROJECT TEAM

| ROLE | COMPANY | ADDRESS | PHONE NUMBER | CONTACT |
|---------------------|-----------------------------------|---|----------------|------------------|
| OWNER | NINESTAR CONNECT | 2243 EAST MAIN STREET GREENFIELD, IN 46140 | (317) 326-3131 | |
| CIVIL ENGINEER | KIMLEY-HORN & ASSOCIATES, INC. | 500 E. 96TH ST., STE 300, INDIANAPOLIS, IN 46240 | (317) 218-9560 | BILL BUTZ, PE |
| LANDSCAPE ARCHITECT | CONTEXT DESIGN | 5825 LAWTON LOOP EAST DRIVE INDIANAPOLIS, IN 46216 | (317) 485-6900 | LIZ MOONEY |
| LAND SURVEYOR | CENTRAL STATES CONSULTING, LLC | 23-B NORTH GREEN STREET, BROWNSBURG, IN 46112 | (317) 858-8662 | DONALD R. MOSSON |

LEGAL DESCRIPTION

LOT 6 OF MCCORD SQUARE

LOCATION MAP

(NOT TO SCALE)



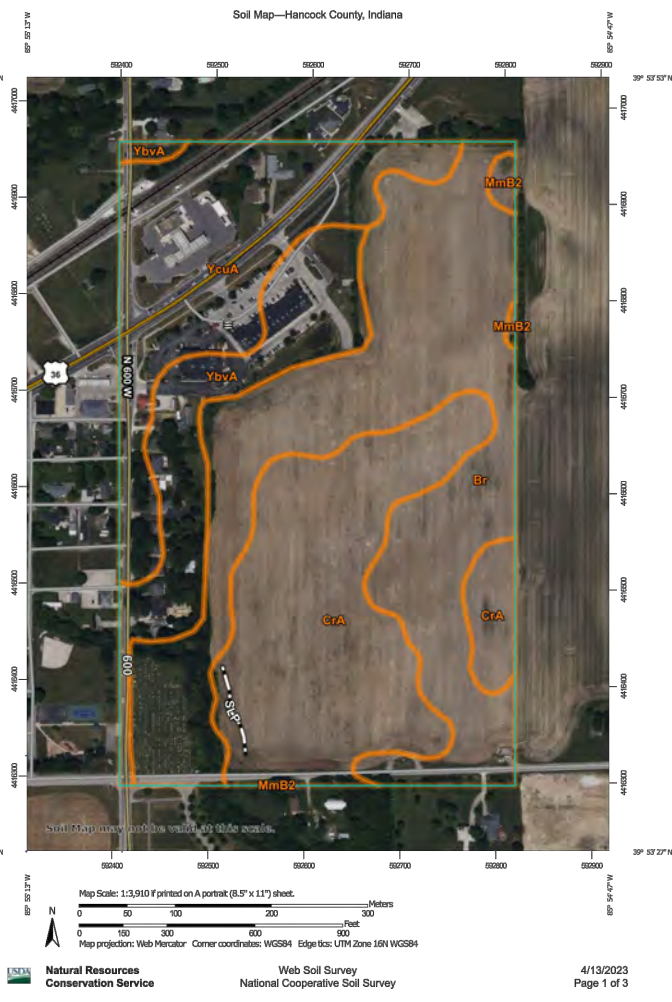
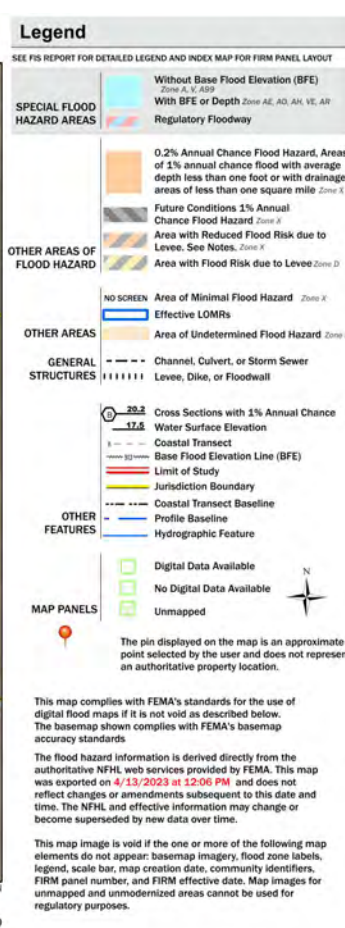
HANCOCK COUNTY

CONSTRUCTION OF A ±12,823 SF OFFICE BUILDING WITH ACCOMPANYING
PARKING LOT AND DRIVES ON 2.8 AC. PROJECT IS IN SECTION 25 OF T17N,
R5E IN THE TOWN OF MCCORDSVILLE, HANCOCK COUNTY, INDIANA

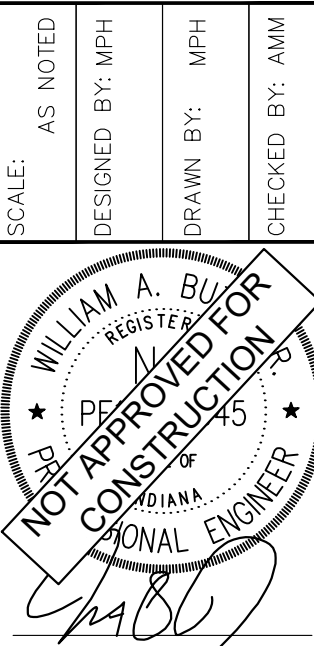
Sheet List Table

| Sheet Number | Sheet Title |
|--------------|-----------------------------------|
| C0.0 | TITLE SHEET |
| C1.0 | GENERAL SPECIFICATIONS |
| C1.1 | GENERAL NOTES |
| C2.0 | EXISTING CONDITIONS AND DEMO PLAN |
| C3.0 | SITE PLAN |
| C4.0 | EROSION CONTROL PLAN |
| C4.1 | EROSION CONTROL DETAILS |
| C4.2 | SWPPP |
| C5.0 | GRADING AND DRAINAGE PLAN |
| C6.0 | UTILITY PLAN |
| C6.1 | STORM PLAN AND PROFILE |
| C6.2 | STORM PLAN AND PROFILE |
| C6.3 | STRUCTURAL DATA TABLE |
| C7.0 | CONSTRUCTION DETAILS |
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| L400 | PLANTING PLAN |
| L410 | PLANTING SCHEDULE AND DETAILS |
| L600 | SITE DETAILS |
| L601 | SITE DETAILS |
| E101 | PHOTOMETRIC (BY OTHERS) |
| 1-10 | MCCORDSVILLE TOWN DETAILS |

National Flood Hazard Layer FIRMette



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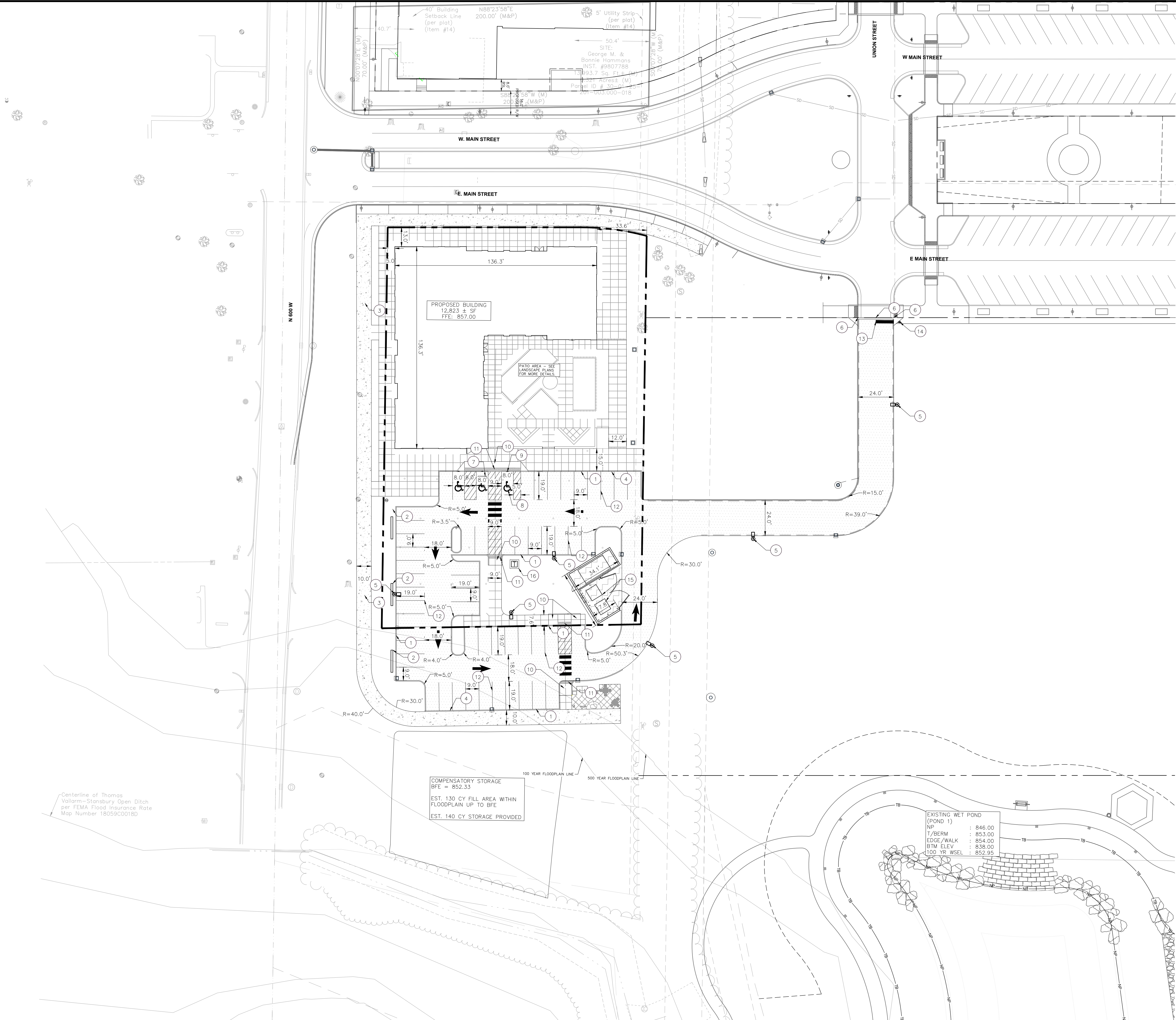


TITLE SHEET

NINESTAR
CONNECT
XXXX UNION ST.
MCCORDSVILLE, IN

ORIGINAL ISSUE:
08/25/23
KHA PROJECT NO.
170043002
SHEET NUMBER
C0.0

Drawing name: K:\IND_LDEV\170043002\Context_McCord Square_McCordsville_INV2 Design\CADD\plan sheets\LN Working\C3.0-SITE PLAN_Niang C3.0 Aug 25, 2023 8:35am by: Michael Holman
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Indiana Utilities Protection Service

Call 811

before you dig

NORTH

GRAPHIC SCALE IN FEET

0 15' 30' 60'

| PAVING LEGEND | |
|---------------|---|
| | STANDARD DUTY ASPHALT PAVEMENT SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION |
| | CONCRETE SIDEWALK SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION |
| | HEAVY DUTY CONCRETE PAVEMENT SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION |

| SITE SUMMARY | |
|--------------------------------------|--------------|
| SITE ZONING | == PUD |
| SITE ACREAGE | == 2.4 AC.± |
| BUILDING AREA | == 12,823 SF |
| BUILDING HEIGHT | == 49.5' FT |
| PARKING SPACES (STANDARD) REQUIRED | == 42 SPACES |
| PARKING SPACES (ACCESSIBLE) REQUIRED | == 02 SPACES |
| PARKING SPACES (STANDARD) PROVIDED | == 32 SPACES |
| PARKING SPACES (ACCESSIBLE) PROVIDED | == 03 SPACES |
| PARKING SHARED SPACES PROVIDED | == 22 SPACES |
| TOTAL PARKING SPACES PROVIDED | == 57 SPACES |

KEY NOTES

1. CONCRETE CURB, TYP. (SEE DETAILS)

2. WALL (SEE LANDSCAPE PLANS FOR DETAILS)

3. CONCRETE SIDEWALK, TYP. (SEE DETAILS)

4. COMBINED CURB AND WALK (SEE DETAIL) (5' FROM FACE OF CURB)

5. LIGHT POLES SHOWN FOR COORDINATION ONLY. (SEE SITE LIGHTING PLAN)

6. CONNECT TO EXISTING PAVEMENT, SIDEWALK, CURB, TYP.

7. CONCRETE PARKING BUMPER TYP. (SEE DETAILS)

8. ACCESSIBLE PAVEMENT MARKINGS, TYP. (SEE DETAILS)

9. ACCESSIBLE PARKING SIGN, TYP. (SEE PLAN FOR VAN LOCATION) (MUTCD R7-8, SEE DETAILS)

10. ACCESSIBLE RAMP (SEE DETAILS)

11. 2' WIDE TACTILE WARNING STRIP

12. 4" WIDE PAVEMENT MARKING, WHITE SOLID LINE, TYP.

13. 24" WIDE STOP BAR, TYP. (SEE DETAILS)

14. STOP SIGN, TYP. (MUTCD R1-1, SEE DETAILS)

15. TRASH COMPACTOR AND ENCLOSURE (SEE ARCHITECTURAL PLANS FOR DETAILS)

16. TRANSFORMER PAD (REFER TO MEP PLANS)

| TOWN OF MCCORDSVILLE NOTE | |
|---|--|
| 1. ALL FREE-STANDING EXTERIOR LIGHTING FIXTURES, POLES, MOUNTS, ETC. SHALL BE BLACK IN COLOR | |
| 2. ALL EXTERIOR LIGHTING SHALL BE 400K LIGHTING COLOR AND LED | |
| 3. ALL LIGHTING SELECTIONS SHALL MATCH THE OVERALL DEVELOPMENT OF MCCORD SQUARE. CONFIRM WITH THE TOWN AND MASTER DEVELOPMENT PRIOR TO ORDERING MATERIALS | |

| GENERAL PLAN NOTES | |
|---|--|
| REFER TO GENERAL NOTES SHEET FOR MORE INFORMATION INCLUDING THE FOLLOWING: (EXISTING LEGEND, BENCHMARK INFORMATION, AND SPECIFIC GENERAL PLAN NOTES.) | |

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INDIANAPOLIS, IN 46240
WWW.KIMLEY-HORN.COM

AS NOTED

DESIGNED BY: MPH

DRAWN BY: MPH

CHECKED BY: AMM

NOT APPROVED FOR CONSTRUCTION

WILLIAM A. BUI

REGISTERED PROFESSIONAL ENGINEER

STATE OF INDIANA

42480

NineStar

CONNECT

SITE PLAN

XXXX UNION ST.

MCCORDSVILLE, IN

ORIGINAL ISSUE:

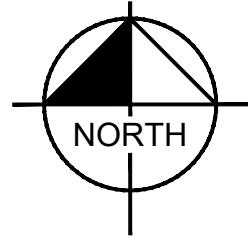
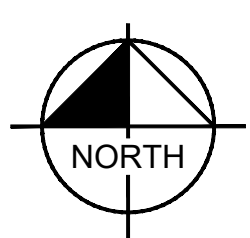
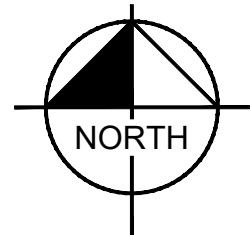
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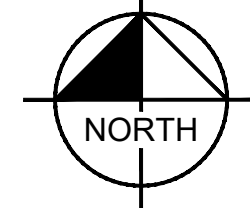
170043002

SHEET NUMBER


C3.0



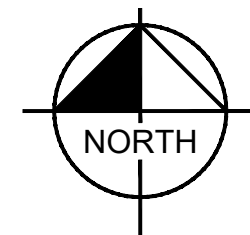
Call 811
before you dig



GRAPHIC SCALE IN FEET



A horizontal scale bar with tick marks at 0, 15, 30, and 60 feet. The bar is divided into alternating black and white segments, with each segment representing 15 feet.

ADA PARKING AND
RAMP 1

REFER TO GENERAL NOTES SHEET FOR MORE INFORMATION INCLUDING THE FOLLOWING: (EXISTING LEGEND, BENCHMARK INFORMATION, AND SPECIFIC GENERAL PLAN NOTES.)

**NINESTAR
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MCCORDSVILLI**

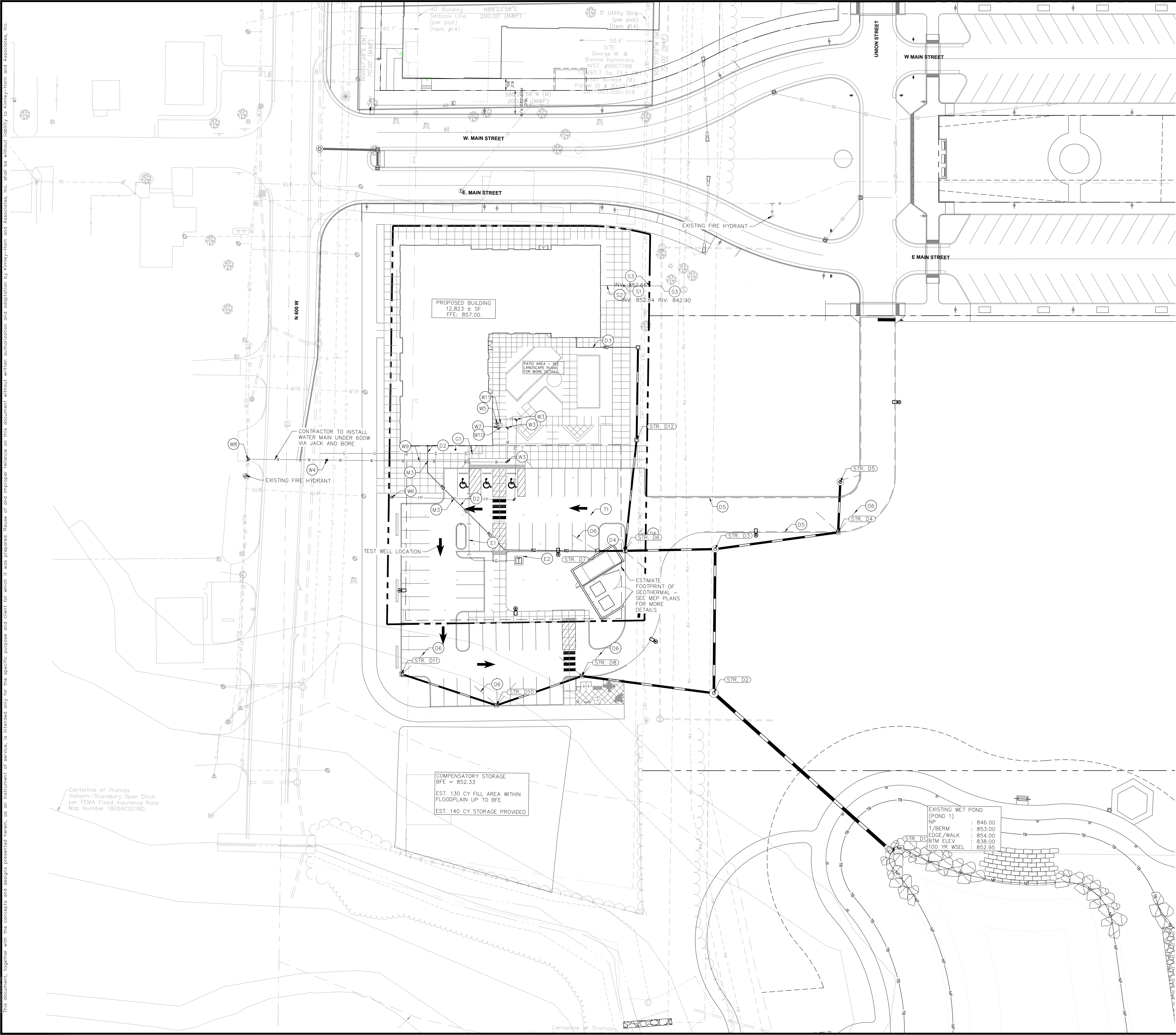
08/25/23

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SHEET NUMBER

C5.0

Drawing name: K:\IND_LDEV\170043002\Context_McCord Square_McCordsville_INV2 Design\CADD\planSheets\LN Working\06.0-SANITARY UTILITY PLAN_McCord C6.0 Aug 25, 2023 8:36am by: Michael Holzman
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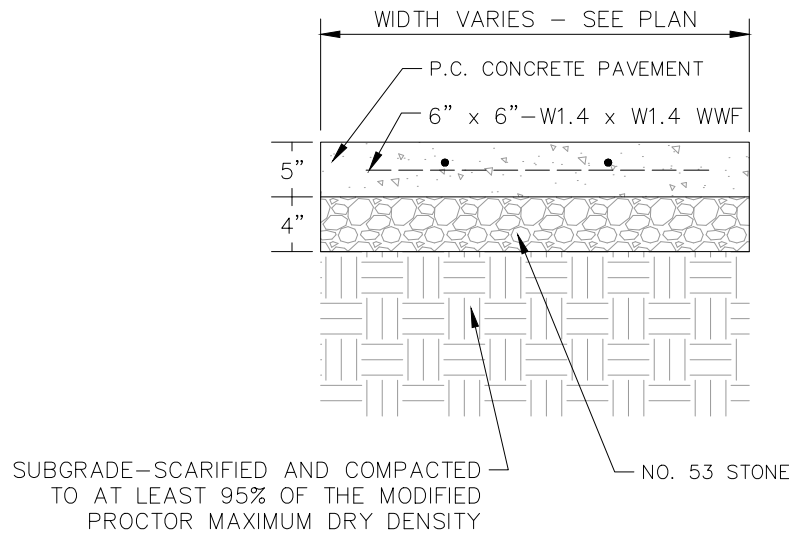
Drawing name: K:\IND-LEVE\170043002-Context_McCordsville_IN2 Design\CAD\PlanSheets\IN Working\C7-C-CONSTRUCTION DETAILS.dwg C7.0 Aug 25, 2023 8:37am by: Michael Hokanson
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TOWN OF MCCORDSVILLE

1. SEE MCCORDSVILLE, INDIANA TOWN STANDARDS ATTACHED TO END OF THIS PLAN SET FOR ALL APPLICABLE STANDARD DETAILS.

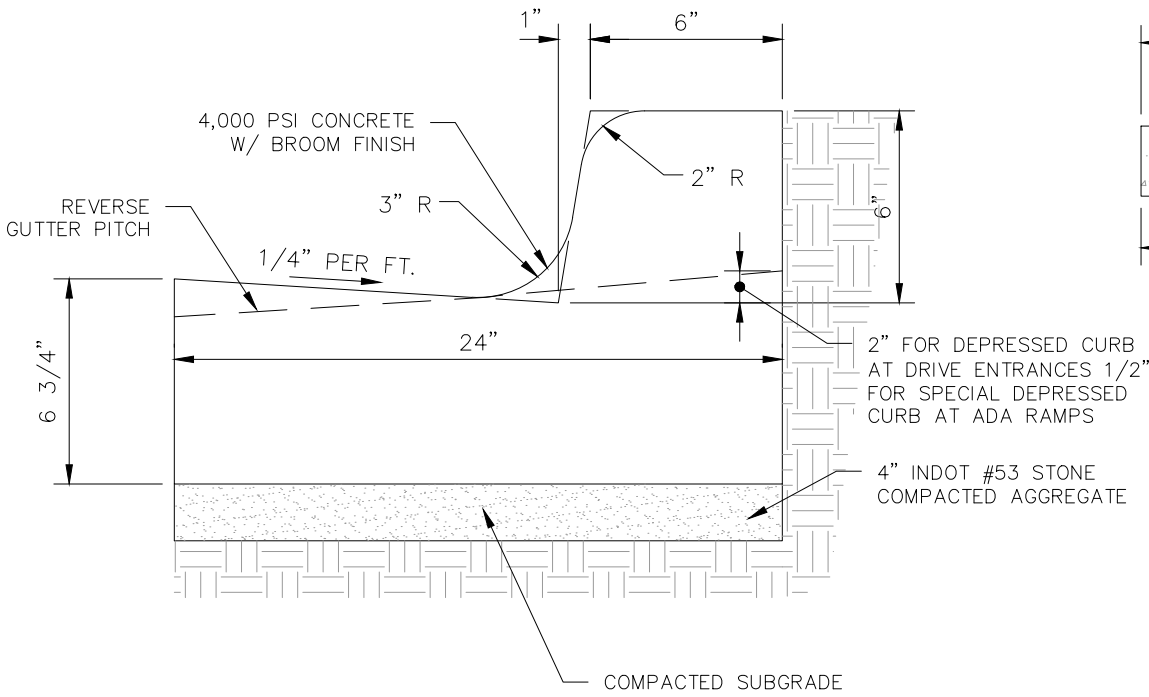
2. SEE TYPICAL SECTIONS AND DETAILS FROM AURORA WAY PROJECT IN WHICH INCLUDES IMPROVEMENTS TO MT. COMFORT RD.

3. SEE SHEET #2 OF THE TOWN STANDARDS FOR MULTI-USE TRAIL SHOWN ON THE SITE PLANS.

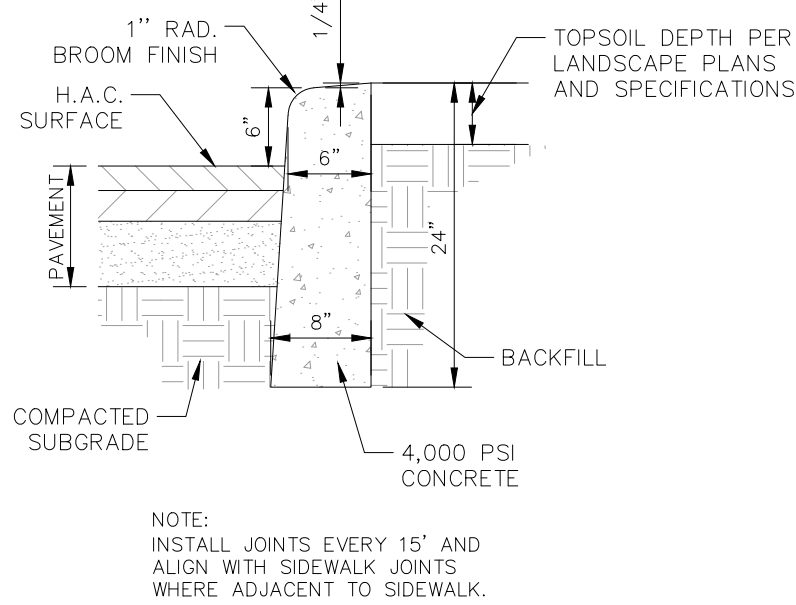


- NOTES:
- ALL SIDEWALK SHALL BE CONSTRUCTED WITH CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 14 DAYS.
 - PROVIDE 1/2" EXPANSION JOINTS AT 20' MAXIMUM, SPACING AND FILLED WITH PREMOULDED BITUMINOUS EXPANSION JOINT FILLER MATERIAL OR REDWOOD. EXPANSION JOINTS SHALL HAVE #4 DOWELS, LUBRICATED, 18" LONG, AT 12" CENTERS, 6" FROM EDGE.
 - PROVIDE 3/8" GROOVED CONTROL JOINTS AT 5' CENTERS.
 - PROVIDE 1/2" BITUMINOUS EXPANSION JOINT FILLER MATERIAL WHERE WALK ABUTS EXISTING IMPROVEMENTS AND AT ALL CHANGES IN GRADE.
 - USE 2-#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK AND CONNECTIONS TO EXISTING SIDEWALK.
 - AT DRIVE APPROACHES, SIDEWALK PCC AND BASE THICKNESS SHALL MATCH THAT OF THE DRIVE.

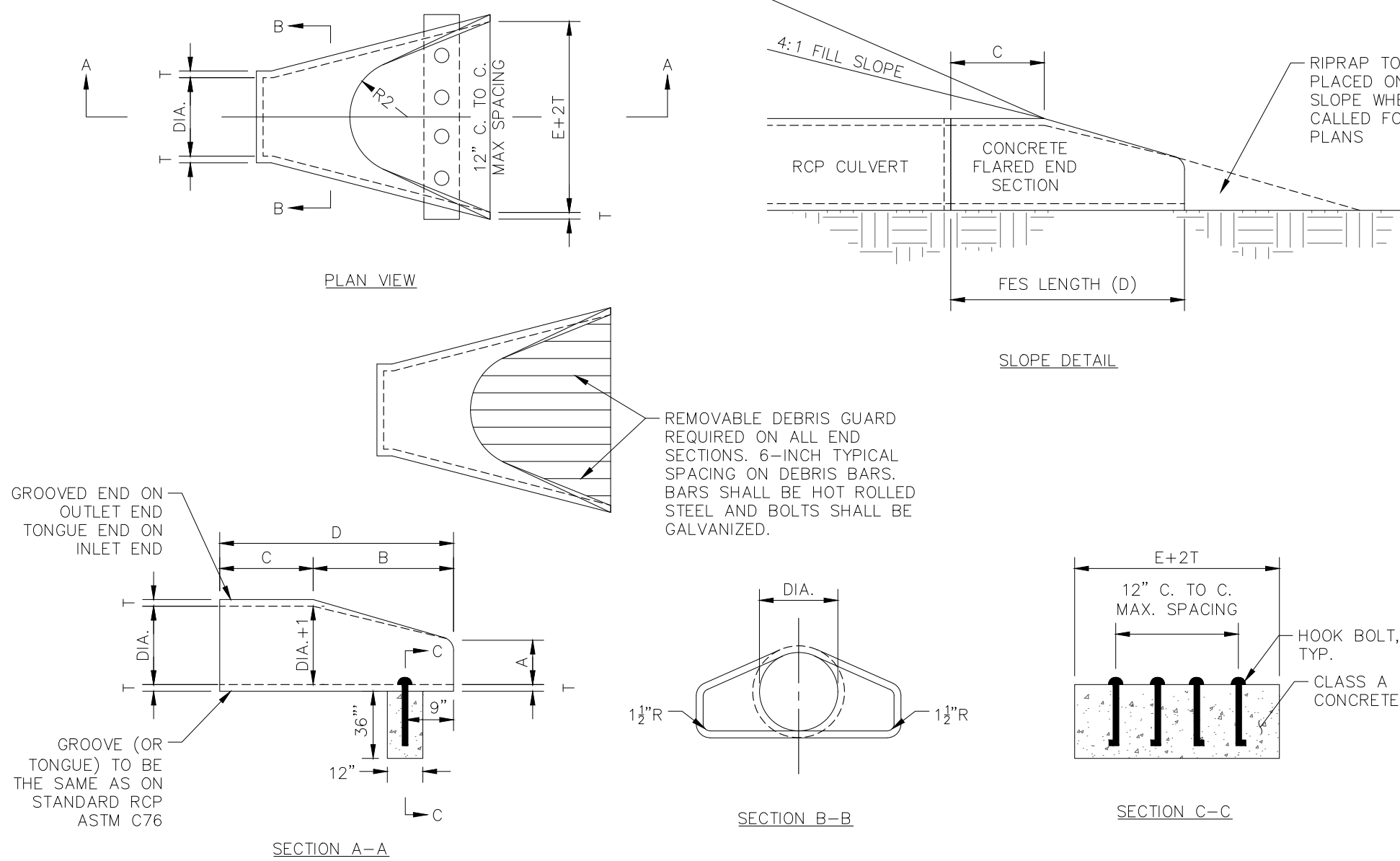
CONCRETE SIDEWALK
N.T.S.



CONCRETE CURB & GUTTER
N.T.S.



CONCRETE CURB
N.T.S.

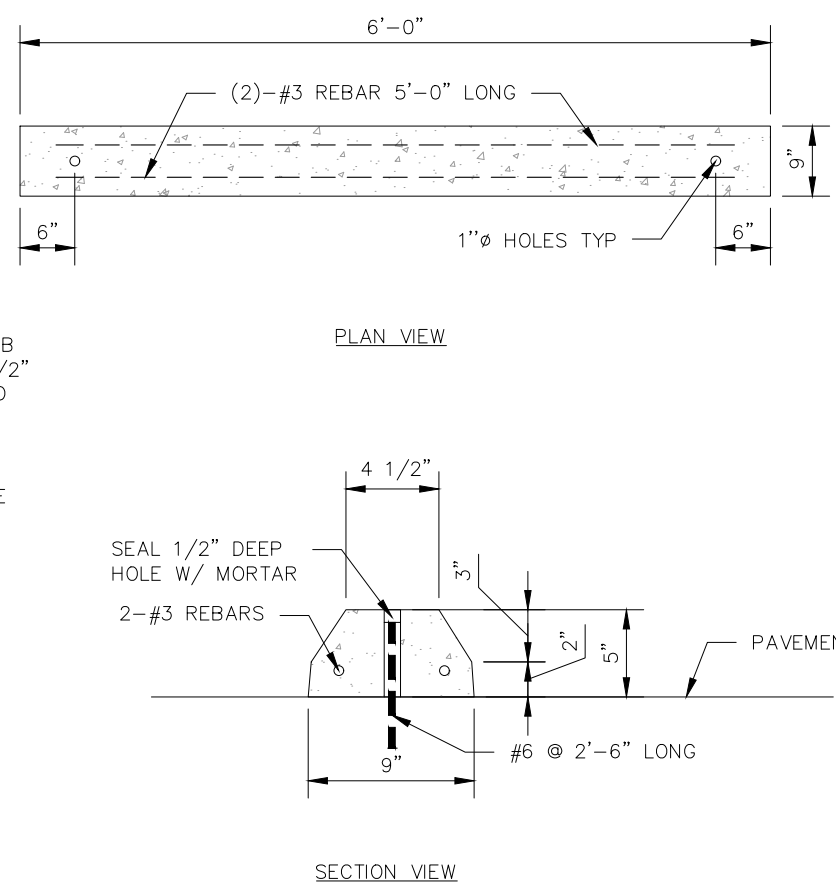


- NOTES:
- CONCRETE AND REINFORCEMENT IN THE PRECAST FES SHALL BE THE SAME GRADE AND STRENGTH AS LISTED IN ASTM C76.
 - THE END OF THE PIPE CULVERT SHALL BE P LACED IN THE FES SO THAT THE FLOW LINES ARE FLUSH. THE JOINT SHALL BE COMPLETELY FILLED WITH MORTAR.
 - IN 3:1 OR 4:1 FILL SLOPE, CHANGE THE SLOPE OF THE FES TO TO PROVIDE A SMOOTH TRANSITION APPROXIMATELY 10' IN LENGTH.
 - THE FES AND PIPE CULVERT DIMENSIONS SHALL MEET ASTM C76.
 - CONCRETE KEY-IN TOES SHALL BE REQUIRED ON ALL FES.

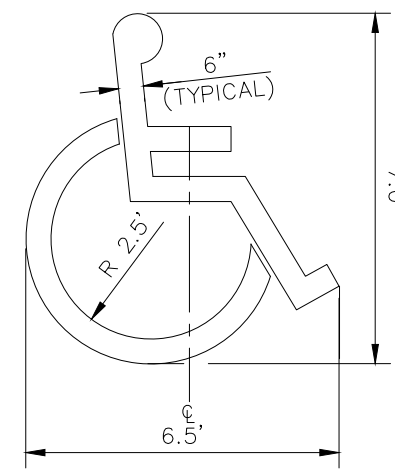
| DIA. | T (MIN) | A* | C* | D* | E* | K | R1 | R2 | ~WEIGHT (LB) |
|------|---------|-----|--------|-------|-------|-----|---------|---------|--------------|
| 12" | 2" | 5" | 4'-3" | 6'-2" | 2'-0" | 1.3 | 10 3/4" | 9" | 800 |
| 15" | 2 1/2" | 7" | 4'-0" | 6'-3" | 2'-6" | 1.5 | 12 1/2" | 11" | 1100 |
| 18" | 2 3/4" | 11" | 4'-1" | 6'-2" | 3'-0" | 1.8 | 15 1/2" | 12" | 1300 |
| 21" | 2 3/4" | 11" | 3'-6" | 6'-3" | 3'-6" | 2.1 | 16 1/2" | 13" | 1500 |
| 24" | 3" | 12" | 2'-8" | 6'-3" | 4'-0" | 2.3 | 16 1/2" | 14" | 1800 |
| 27" | 3 1/2" | 13" | 2'-5" | 6'-3" | 4'-6" | 2.6 | 18 1/2" | 14 1/2" | 2100 |
| 30" | 3 3/4" | 14" | 1'-10" | 6'-3" | 5'-0" | 2.9 | 18 1/2" | 15" | 2400 |
| 33" | 3 3/4" | 15" | 3'-6" | 8'-3" | 5'-6" | 3.1 | 23 1/2" | 17 1/2" | 4100 |
| 36" | 4" | 17" | 3'-1" | 8'-3" | 6'-0" | 3.4 | 24 1/2" | 20" | 4200 |

* 1" TOLERANCE

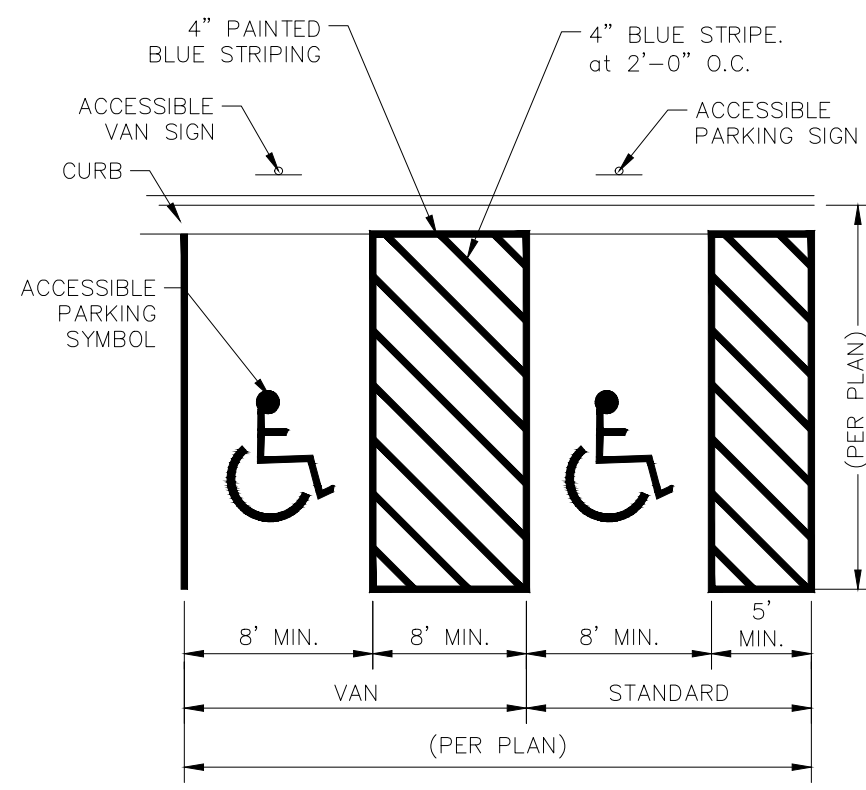
END SECTION AND KEY-IN DETAIL
N.T.S.



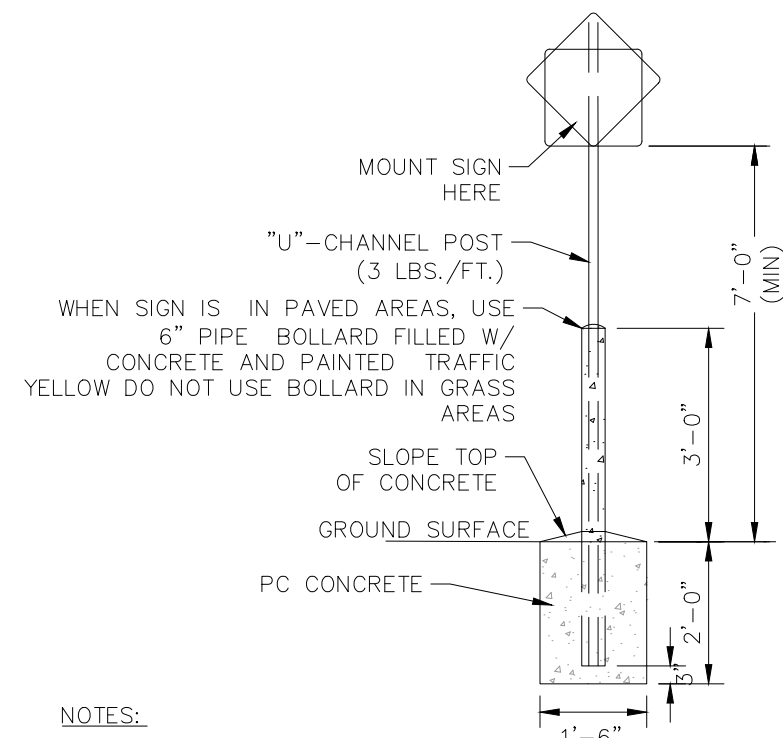
CONCRETE PARKING BUMPER
N.T.S.



ACCESSIBLE PARKING SYMBOL
N.T.S.

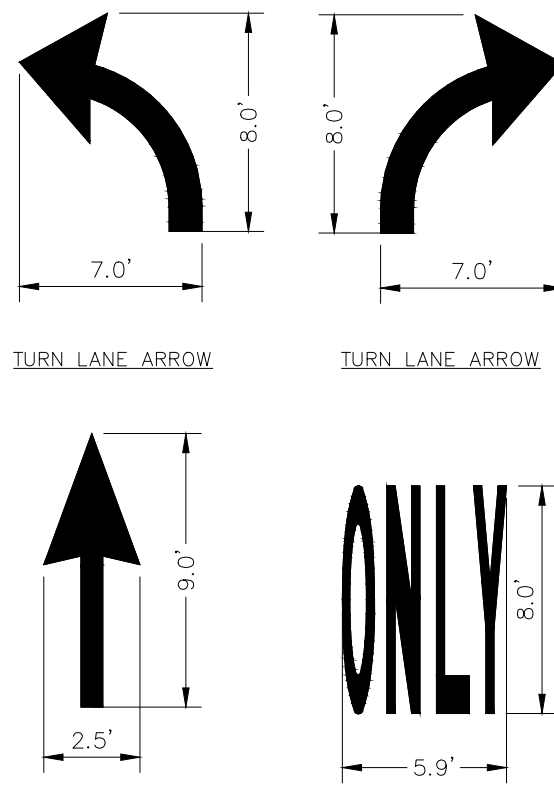


ACCESSIBLE PAVEMENT MARKINGS
N.T.S.



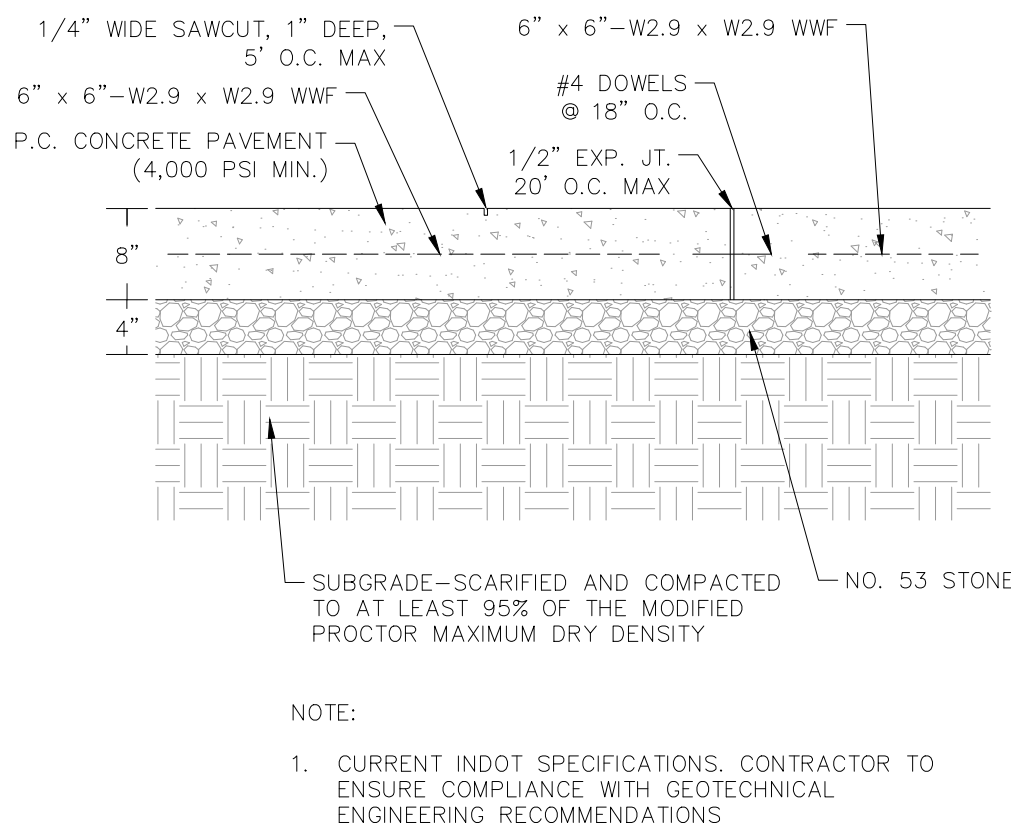
- NOTES:
- POLE AND SIGN TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.
- ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES, AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

STANDARD SIGN BASE
N.T.S.

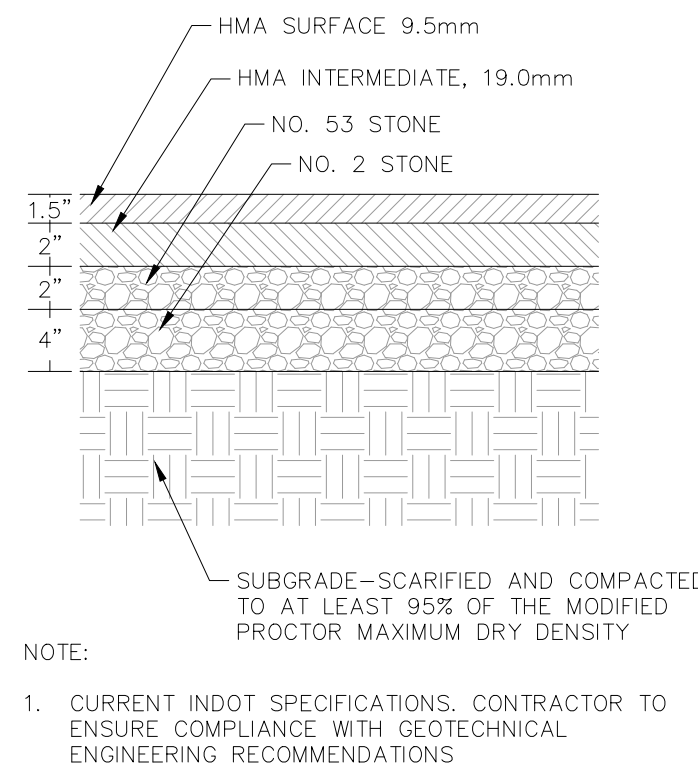


NOTE: ALL TRAFFIC FLOW ARROWS TO BE PAINTED PER STATE DOT STANDARDS PER DIMENSIONS ABOVE.

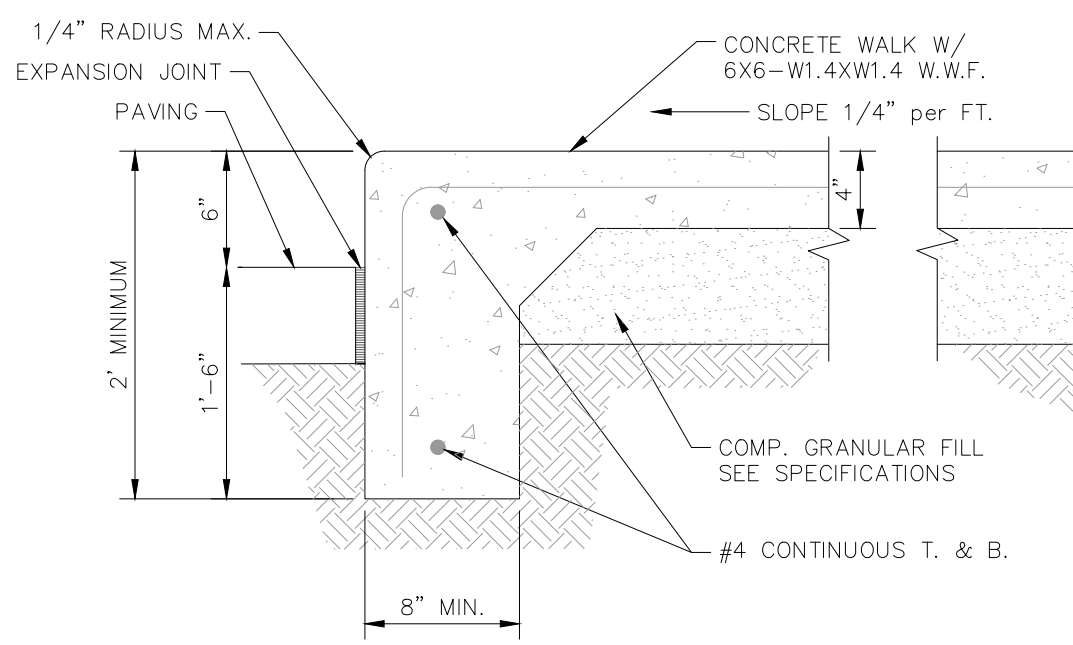
TRAFFIC FLOW MARKINGS
N.T.S.



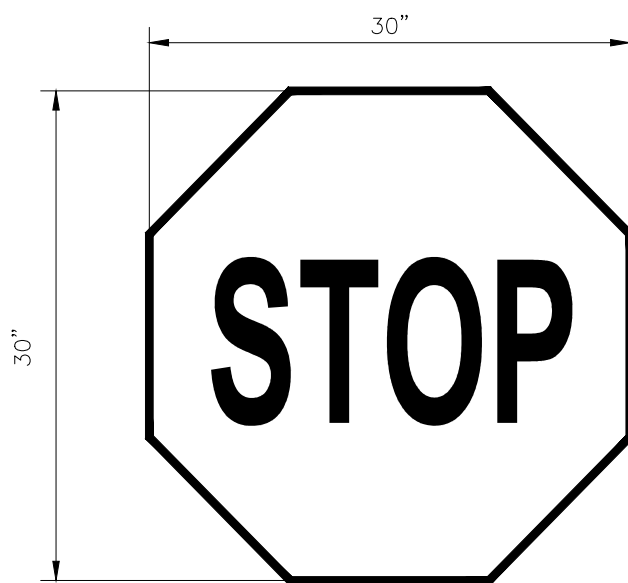
HEAVY DUTY CONCRETE PAVEMENT SECTION
N.T.S.



STANDARD DUTY ASPHALT PAVEMENT SECTION
N.T.S.



COMBINED CURB AND WALK DETAIL
N.T.S.



STOP SIGN
N.T.S.

Kimley-Horn

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INDIANAPOLIS, IN 46240
WWW.KIMLEY-HORN.COM

DESIGNED BY: MPH
DRAWN BY: MPH
CHECKED BY: AMM

WILLIAM A. BUEHLER
REGISTERED PROFESSIONAL ENGINEER
NO. 14802
STATE OF INDIANA

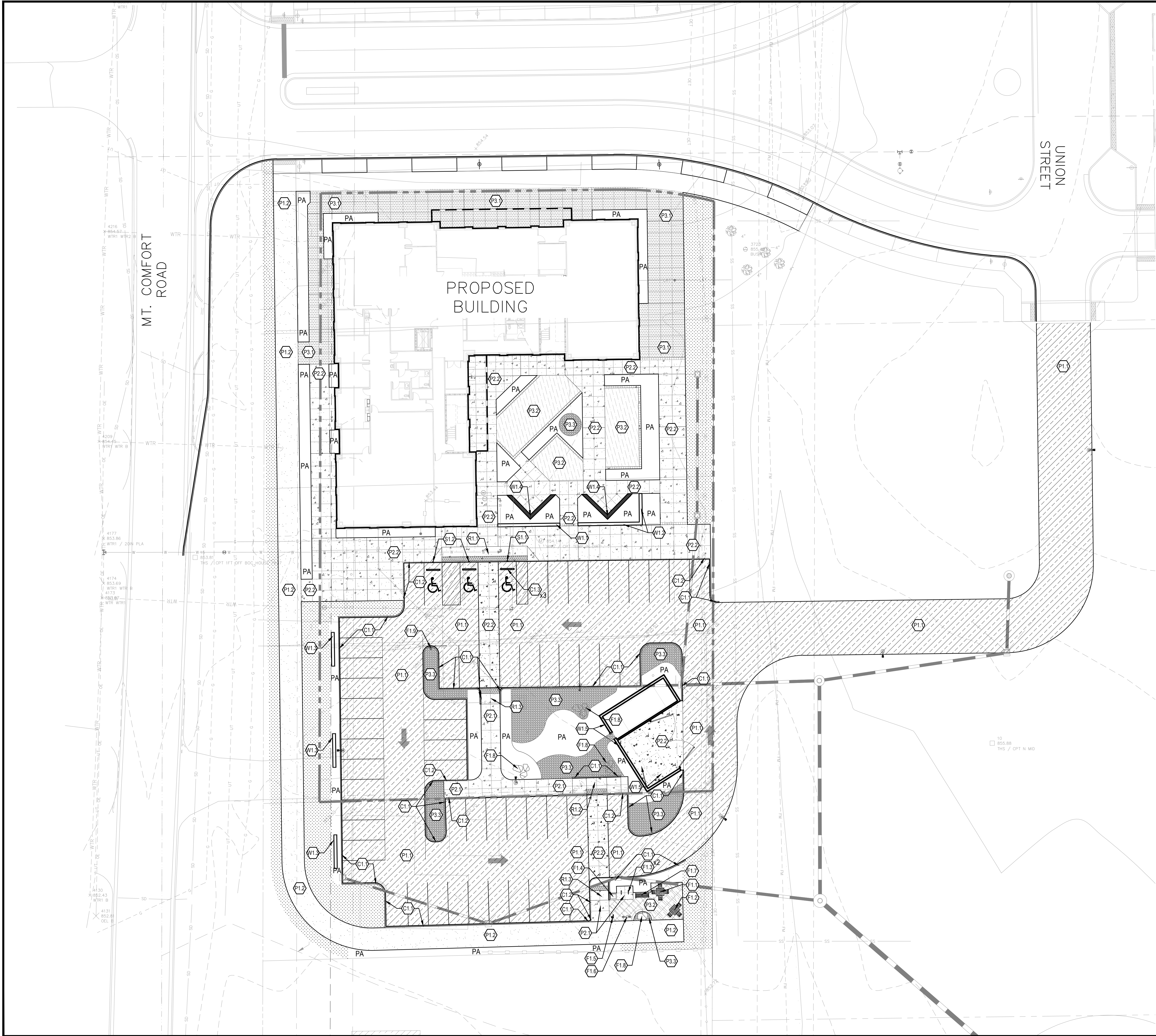
NineStar
CONNECT

CONSTRUCTION
DETAILS

NINESTAR
CONNECT
XXXX UNION ST.
MCCORDSVILLE, IN

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08/25/23
KHA PROJECT NO.
170043002
SHEET NUMBER
C7.0

REVISIONS
DATE
BY



MATERIAL LEGEND

- C1.0 Curbing
- C1.1 Curb, Post, Refer to Detail 12/L600
 - C1.2 Curb, Integral Sidewalk w/ WWM, Refer to Detail 11/L600
 - C1.3 Wheel Stops, Refer to Detail 7/L600
- F1.0 Site Furnishings
- F1.1 Picnic Table, Type 1, Refer to Specifications
 - F1.2 Picnic Table, Type 2, Refer to Specifications
 - F1.3 Bicycle Rack, Refer to Specifications
 - F1.4 Liter Receptacle, Refer to Specifications
 - F1.5 Bicycle Repair Station, Refer to Specifications
 - F1.6 Drinking Fountain with Dog Bowl, Refer to Specifications
 - F1.7 Backed Bench, Refer to Specifications
 - F1.8 Tennessee Boulder on Gravel Bed, Refer to Specifications
 - F1.9 Drop Box, Provided by Owner

- P1.0 Pavement, Asphalt
- P1.1 Asphalt, Standard Duty, Refer to Detail 5/L600
 - P1.2 Asphalt, Trail, Refer to Detail 4/L600

- P2.0 Pavement, Concrete
- P2.1 Concrete, 5" w/ WWM, Refer to Detail 1 & 3/L600
 - P2.2 Concrete, 6" Heavy Duty w/ Rebar, Refer to Detail 2 & 3/L600

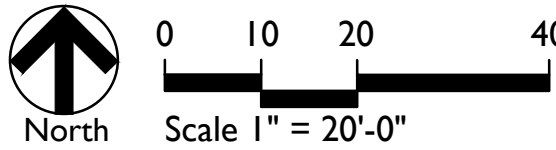
- P3.0 Pavement, Specialty
- P3.1 Decorative Paving, Type 1, Refer to Detail 6 & 8/L600
 - P3.2 Decorative Unit Pavers, Refer to Detail 6 & 8/L600
 - P3.3 Stone Gravel, Refer to Detail 6 & 8/L600

- R1.0 Accessible Sidewalk Ramps
- R1.1 Curb Ramp, Double Flare, Refer to Detail 1/L601
 - R1.2 Curb Ramp, Parallel, Refer to Detail 3/L601
 - R1.3 Curb Ramp, Straight, Refer to Detail 5/L601

- S1.0 Signage, (comply with MUTCD Standards)
(VIF Regulatory Signs with City Representative)
- S1.1 ADA Parking, Refer to Detail 13/L600
 - S1.2 Van Accessible ADA Parking, Refer to Detail 13/L600

- W1.0 Walls
- W1.1 Screen Wall, Type 1, Refer to Detail 4/L601
 - W1.2 Screen Wall, Type 2, Refer to Detail 4/L601
 - W1.3 Screen Wall, Type 3, Refer to Detail 4/L601
 - W1.4 Wood Topped Seat Wall, Refer to Detail 6/L601
 - W1.5 Dumpster Enclosure, Refer to Architectural Drawings

- PA Planting Area
- Area to be Lawn Seeded



| Revision | Date | Description |
|----------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |

| | |
|-------------|------------|
| Date: | 2023/08/25 |
| Project No: | 22-1595 |
| Drawn by: | MA |
| Checked by: | LM |

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GENERAL LANDSCAPE AND PLANTING NOTES

- Refer to Project Manual for Planting Specifications and Topsoil requirements. Refer to Plant Schedule and Planting Details for additional information.
- All materials are subject to the approval of the Landscape Architect and Owner at any time. Landscape Architect to inspect all plant locations and plant bed conditions prior to installation. On-site adjustments may be required.
- Rootballs shall meet or exceed size standards as set forth in 'American Standards for Nursery Stock'. MAIN LEADERS OF ALL TREES SHALL REMAIN INTACT.
- Remove from the site any plant material that turns brown or defoliates within five (5) days after planting. Replace immediately with approved, specified material.
- Plant counts indicated on drawings are for Landscape Architect's use only. Contractor shall make own plant quantity takeoffs using drawings, specifications, and plant schedule requirements (i.e., spacing), unless otherwise directed by Landscape Architect. Contractor to verify bed measurements and install appropriate quantities as governed by plant spacing per schedule. Plant material quantities shown on plan are minimum quantities. Additional material may be needed to meet spacing requirements and field conditions.
- Seed all areas disturbed by construction activities that are not otherwise noted to receive pavement, planting bed, or sod treatment.
- The Contractor shall install and/or amend topsoil in all proposed bed areas to meet Specifications. Contractor shall coordinate quantity and placement of topsoil. Landscaper shall verify depth of topsoil prior to plant installation. (Refer to specifications for topsoil source and placement requirements)
- All tree locations shall be marked with 2x2" stakes prior to planting for review and approval by the Landscape Architect. Any plant material installed in an incorrect location, by the judgment of the Landscape Architect, shall be reinstalled at the Contractor's expense.
- All plant beds shall receive 3" minimum of shredded hardwood bark mulch (unless otherwise noted).
- Verify all utility locations in the field prior to beginning work. Repair all damaged utilities to Owner's satisfaction at no additional cost.
- The Contractor shall maintain all plant material and lawns until the project is fully accepted by the Landscape Architect, unless otherwise noted.
- All workmanship and materials shall be guaranteed by the Contractor for a period of one calendar year after Final Acceptance.
- Install all plant material in accordance with all local codes and ordinances. Coordinate with the Owner to obtain any required permits necessary to complete work.
- Contractor shall test all tree pits for drainage. Any tree pit that holds water for more than 24 hours shall be installed using tree pit drainage.
- Tree Protection Fencing is the responsibility of the Contractor. Minimum protected area shall include the full drip line of the canopy. NO construction activities, material storage, etc. may occur within that area. The Contractor shall ensure that no soil compaction or tree damage occurs in any Protected areas, at any time during the construction process.
- Trees shall be matched in groups unless otherwise noted.

ORDINANCE REQUIREMENTS

ZONING: Mixed-Use District
From Hancock Gateway Park Planned Unit Development as of 2019-07-15 and 1st Amendment dated 2021-03-02 and 2nd Amendment dated 2021-10-26:

Street Trees
Street trees are required 40 feet on center along Mt. Comfort Road and along internal streets.

TOTAL REQUIRED: 342 LF of Street frontage = 9 Trees
TOTAL PROVIDED: 9 Trees @ 40' O.C.

Foundation Plantings
All facades shall plant foundation plantings in planting beds adjacent to the building, in planters, or in the Streetscape Zone. For buildings with commercial uses on the first floor, a minimum of 30% of the length of each facade shall feature landscape plantings. These plantings shall be a minimum of 50% evergreen.

TOTAL REQUIRED:
West - 136.33 lf (0.30) = 40.90 lf. foundation plantings, 20.45 lf. evergreen plantings.
North - 136.33 lf (0.30) = 40.90 lf. foundation plantings, 20.45 lf. evergreen plantings.
East - 139.58 lf (0.30) = 41.87 lf. foundation plantings, 20.94 lf. evergreen plantings.
South - 139.37 lf (0.30) = 41.81 lf. foundation plantings, 20.91 lf. evergreen plantings.

TOTAL PROVIDED:
West - 140.90 lf. foundation plantings, 20.45 lf. evergreen foundation plantings.
North - 40.90 lf. foundation plantings, 20.45 lf. evergreen foundation plantings.
East - 41.87 lf. foundation plantings, 20.94 lf. evergreen foundation plantings.
South - 41.81 lf. foundation plantings, 20.91 lf. evergreen foundation plantings.

Site Plantings
All lots, including common areas (but not including Civic Green, Civic Commons, or the Stormwater Park) shall be planted with supplemental trees if less than the required number of trees exist on the lot or common area after construction is complete. Street trees do not count towards this requirement, but all other tree plantings shall. Minimum site planting provisions shall be:
5 trees for lots/common area greater than 1 acre

TOTAL REQUIRED: 59,258 sf. lot = 5 trees for lots/common area greater than 1 acre
TOTAL PROVIDED: 5 trees

Perimeter Parking Lot Plantings
All off-street parking lots, greater than 6 spaces shall include: Trees - 1 tree per 50 lineal feet of parking lot perimeter; Shrubs - 1 shrub per 3 lineal feet - minimum 50% of shrubs to be evergreen - minimum mature height of 3'; Walls - Decorative walls may be used to screen parking areas. When an opaque brick or stone wall of at least 3' in height is used, the shrub planting requirement may be reduced by 50%. Mt. Comfort Road - A wall is required for any parking lot adjacent to Mt. Comfort Road and must be opaque brick or stone. The landscape requirement will not be reduced along this roadway.

TOTAL REQUIRED:
West: 118.03 lf. of Parking - 45 lf. of wall = 73.03 lf. / 50 = 2 trees, 73.03 lf. / 3 = 25 total shrubs, with 13 being evergreen shrubs; 45 lf. of wall = 45 lf. / 50 = 1 tree, 45 lf. / 3 = 15 total shrubs, with 4 being evergreen shrubs. Total - 33 total shrubs with 17 being evergreen shrubs
South: 91.92 lf. / 50 = 2 trees, 91.92 lf. / 3 = 31 total shrubs, with 16 being evergreen shrubs

TOTAL PROVIDED:
West: 3 trees, 36 total shrubs, with 18 being evergreen shrubs
South: 2 trees, 31 total shrubs, with 16 being evergreen shrubs

Internal Parking Lot Plantings
All off-street parking lots, greater than 15 spaces shall provide at least one landscaped island, bump-out, or peninsula for every 15 parking spaces. Each island, bump-out or peninsula shall be a minimum of 180 sf and feature one tree.

TOTAL REQUIRED: 59 parking spaces/15 spaces = 4 Islands & 4 shade trees
TOTAL PROVIDED: 4 Islands & 4 shade trees

Buffer Yards - Buffer yards are not required
Any grass strip between the curb and sidewalk that is at least ten (10) feet in width shall feature street trees every fifty (50) feet on center.



TOWN SUBMITTAL
NINESTAR
McCordsville, Indiana
PLANTING PLAN

| Revision | Date | Description |
|----------|------|-------------|
| | | |
| | | |
| | | |
| | | |

Date: 2023/08/25
Project No: 22-1595
Drawn by: MA
Checked by: LM

These Drawings and Specifications, and all copies thereof are and shall remain the property and copyright of the Landscape Architect. They shall be used only with respect to this Project and are not to be used on any other Project or Work without prior written permission from the Landscape Architect.

Sheet No:
L400

PLANT SCHEDULE SITE PLANTINGS

| DECIDUOUS TREES | QTY | BOTANICAL NAME | COMMON NAME | CONT | CAL | REMARKS |
|-----------------|-----|------------------------------|----------------------------|-------|-------|--------------------------------------|
| Pla-x | 4 | Platanus x acerifolia | London Plane Tree | B & B | 2"Cal | full, strong central leader, matched |
| Zel-s | 11 | Zelkova serrata 'Green Vase' | Green Vase Sawleaf Zelkova | B & B | 2"Cal | full, strong central leader, matched |

| FLOWERING TREES | QTY | BOTANICAL NAME | COMMON NAME | CONT | CAL | REMARKS |
|-----------------|-----|---|--------------------------------|-------|--------|----------------------|
| Ame-x | 3 | Amelanchier x grandiflora 'Autumn Brilliance' | Autumn Brilliance Serviceberry | B & B | 8' ht. | multi-trunk; matched |

| SHRUBS | QTY | BOTANICAL NAME | COMMON NAME | SIZE | HEIGHT | REMARKS |
|--------|-----|--|----------------------------------|-----------|------------|-----------------------------------|
| Aro-a | 18 | Aronia arbutifolia 'Brilliantissima' | Brilliant Red Chokeberry | container | 24" | space @ 3'-0" o.c. |
| Bux-g | 8 | Buxus x 'Green Mountain' | Green Mountain Boxwood | container | 18" | space @ 3'-0" o.c., allow to mass |
| Cor-s | 12 | Cornus sericea 'Cardinal' | Cardinal Red-twig Dogwood | container | 24" | space @ 4'-0" o.c. |
| Hyd-a | 17 | Hydrangea arborescens 'Abetwo' | Incrediball Hydrangea | container | 24" | space @ 5'-0" o.c. |
| Hyd-m | 12 | Hydrangea macrophylla 'Endless Summer Twist-n-Shout' | Twist-n-Shout Hydrangea | container | 24" | space @ 4'-0" o.c. |
| Ile-n | 16 | Ilex glabra 'Chamzin' | Nordic Holly | container | 24" | space @ 3'-0" o.c. |
| Ile-g | 18 | Ilex glabra 'Shamrock' | Shamrock Inkberry | container | 24" | space @ 4'-0" o.c., allow to mass |
| Ite-s | 11 | Itea virginica 'Sprich' | Little Henry Virginia Sweetspire | container | 24" | space @ 3'-0" o.c. |
| Nep-w | 20 | Nepeta x 'Walker's Low' | Walker's Low Catmint | 3 gal | | |
| Phy-o | 15 | Physocarpus opulifolius 'Summer Wine' | Summer Wine Ninebark | container | 24" | space @ 5'-0" o.c. |
| Rhu-a | 5 | Rhus aromatica 'Gro-Low' | Gro-Low Fragrant Sumac | container | 18" spread | space @ 4'-0" o.c., allow to mass |
| Tax-x | 18 | Taxus x media 'Densiformis' | Dense Yew | container | 24" | space @ 3'-0" o.c., allow to mass |

| GROUND COVERS | QTY | BOTANICAL NAME | COMMON NAME | CONT | SPACING | REMARKS |
|---------------|-----|----------------------------|--------------------|--------|---------|--------------------------------------|
| Lir-m | 535 | Liriope muscari 'Big Blue' | Big Blue Lilyturf | #1 pot | | space @ 15" o.c., triangular spacing |
| Lir-s | 445 | Liriope spicata | Creeping Lily Turf | #1 pot | | space @ 12" o.c., triangular spacing |

PLANT SCHEDULE COURTYARD PLANTINGS

| FLOWERING TREES | QTY | BOTANICAL NAME | COMMON NAME | CONT | CAL | REMARKS |
|-----------------|-----|---|--------------------------------|-------|--------|--------------------------------------|
| Ame-x | 9 | Amelanchier x grandiflora 'Autumn Brilliance' | Autumn Brilliance Serviceberry | B & B | 8' ht. | multi-trunk; matched |
| Cer-c | 2 | Cercis canadensis | Eastern Redbud | B & B | 8' ht. | multi-trunk, matched |
| Cor-k | 3 | Cornus kousa chinensis | Chinese Dogwood | B & B | 2"Cal | full, strong central leader, matched |

| SHRUBS | QTY | BOTANICAL NAME | COMMON NAME | SIZE | HEIGHT | REMARKS |
|--------|-----|-----------------------------------|-------------------------------|-----------|--------|--------------------|
| Aro-m | 3 | Aronia melanocarpa 'Autumn Magic' | Autumn Magic Black Chokeberry | container | 24" | space @ 5'-0" o.c. |
| Hyd-w | 11 | Hydrangea quercifolia 'Pee Wee' | Pee Wee Oakleaf Hydrangea | container | 24" | space @ 3'-0" o.c. |

| GRASSES | QTY | BOTANICAL NAME | COMMON NAME | SIZE | HEIGHT | REMARKS |
|---------|-----|--|----------------------------------|------|--------|--------------------|
| Cal-x | 26 | Calamagrostis x acutiflora 'Karl Foerster' | Karl Foerster Feather Reed Grass | pot | #2 | space @ 3'-0" o.c. |

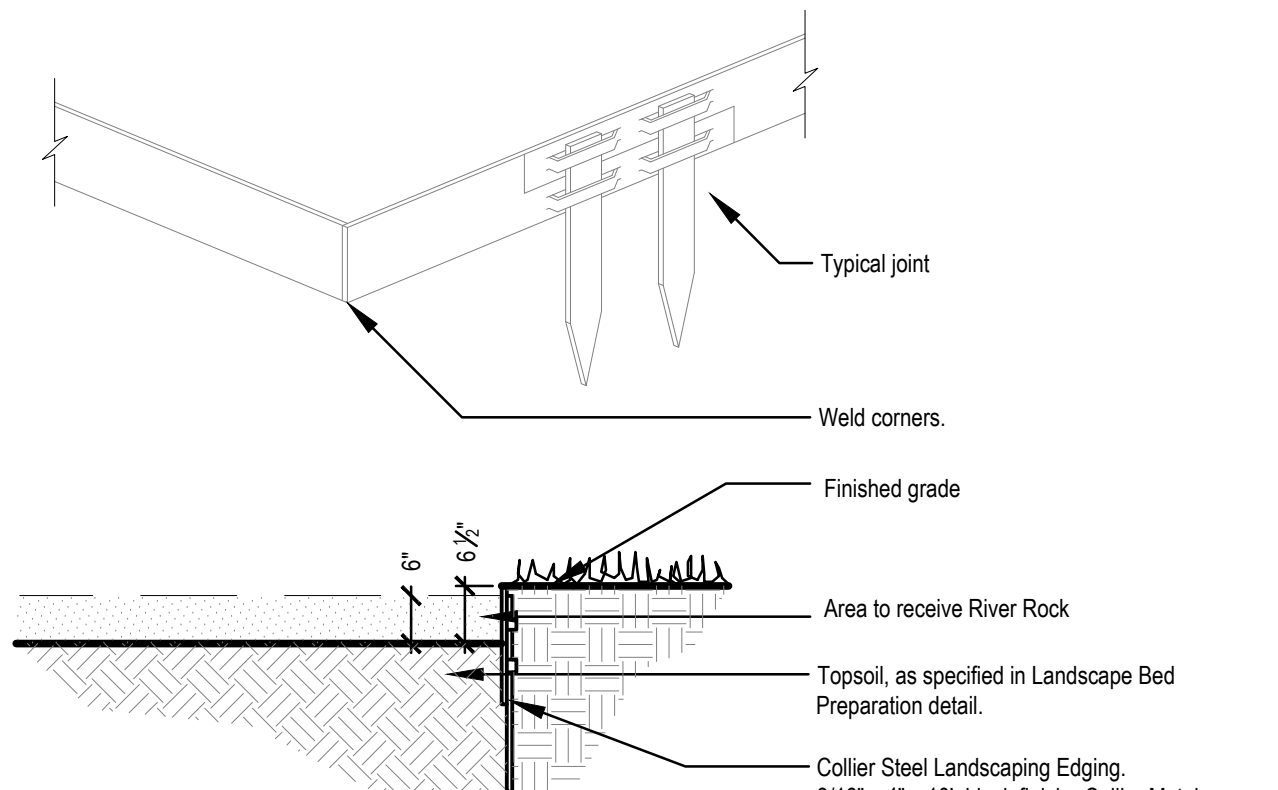
| GROUND COVERS | QTY | BOTANICAL NAME | COMMON NAME | CONT | SPACING | REMARKS |
|---------------|-----|--|-------------------------------------|--------|---------|--------------------------------------|
| All-x | 265 | Allium x 'Millenium' | Millenium Ornamental Chive | #1 pot | | space @ 12" o.c., triangular spacing |
| Ger-s | 63 | Geranium sanguineum 'Max Frei' | Max Frei Dwarf Blood-red Cranesbill | #1 pot | | space @ 24" o.c., triangular spacing |
| Lav-x | 68 | Lavandula x intermedia 'Violet Intrigue' | Violet Intrigue Lavender | #1 pot | | space @ 24" o.c., triangular spacing |
| Lir-m | 270 | Liriope muscari 'Big Blue' | Big Blue Lilyturf | #1 pot | | space @ 15" o.c., triangular spacing |

PLANT SCHEDULE TRAILHEAD PLANTINGS

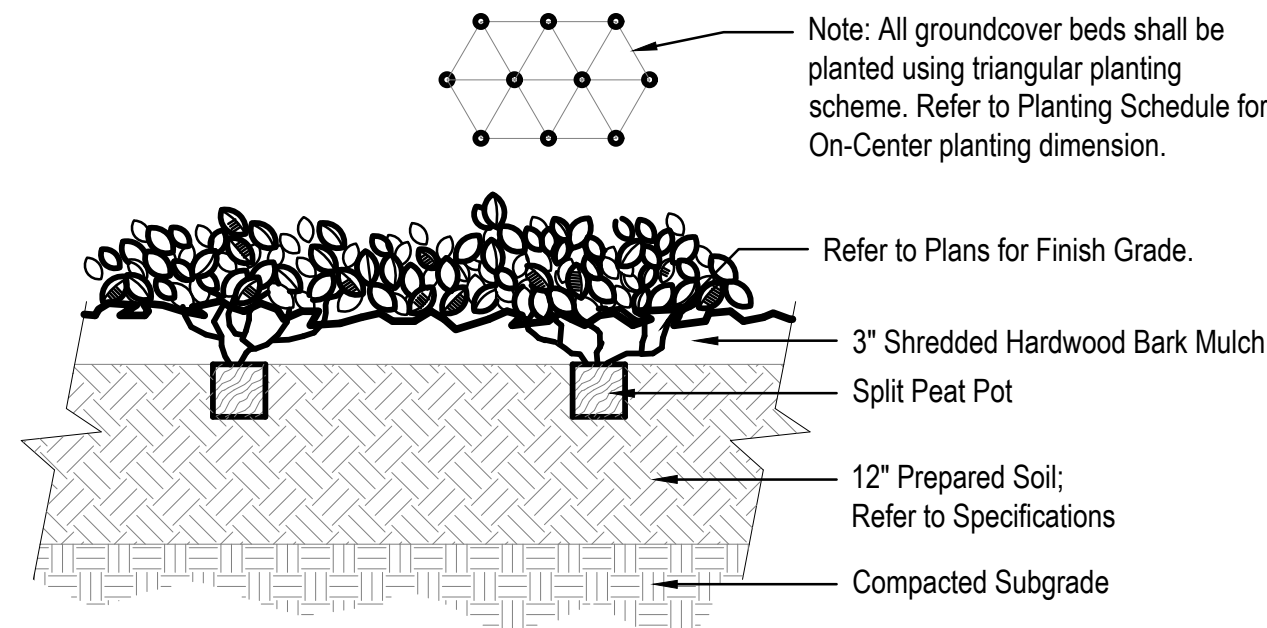
| FLOWERING TREES | QTY | BOTANICAL NAME | COMMON NAME | CONT | CAL | REMARKS |
|-----------------|-----|------------------------------------|---------------------------|-------|-------|--------------------------------------|
| Cor-f | 1 | Cornus florida 'Cherokee Princess' | Cherokee Princess Dogwood | B & B | 2"Cal | full, strong central leader, matched |

| SHRUBS | QTY | BOTANICAL NAME | COMMON NAME | SIZE | HEIGHT | REMARKS |
|--------|-----|-------------------------|----------------------------------|-----------|--------|--------------------|
| Ite-s | 6 | Itea virginica 'Sprich' | Little Henry Virginia Sweetspire | container | 24" | space @ 3'-0" o.c. |

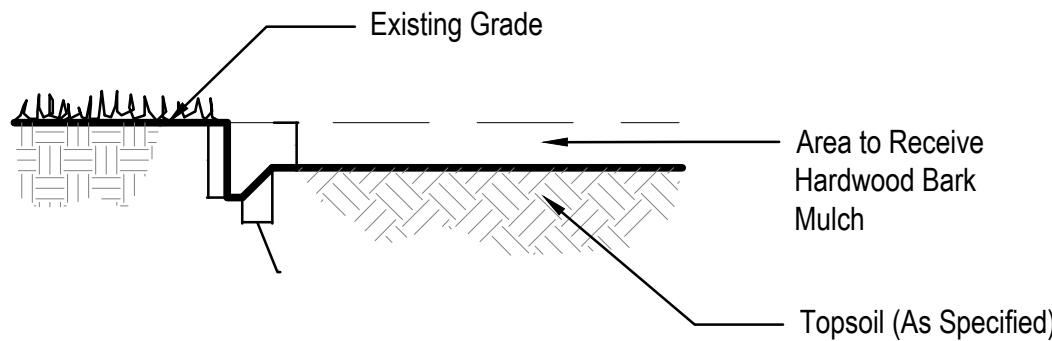
| GRASSES | QTY | BOTANICAL NAME | COMMON NAME | SIZE | HEIGHT | REMARKS |
|---------|-----|--|----------------------------------|------|--------|--------------------|
| Cal-x | 9 | Calamagrostis x acutiflora 'Karl Foerster' | Karl Foerster Feather Reed Grass | pot | #2 | space @ 3'-0" o.c. |
| Sch-j | 11 | Schizachyrium scoparium 'Jazz' | Jazz Little Bluestem Grass | pot | #1 | space @ 2'-0" o.c. |



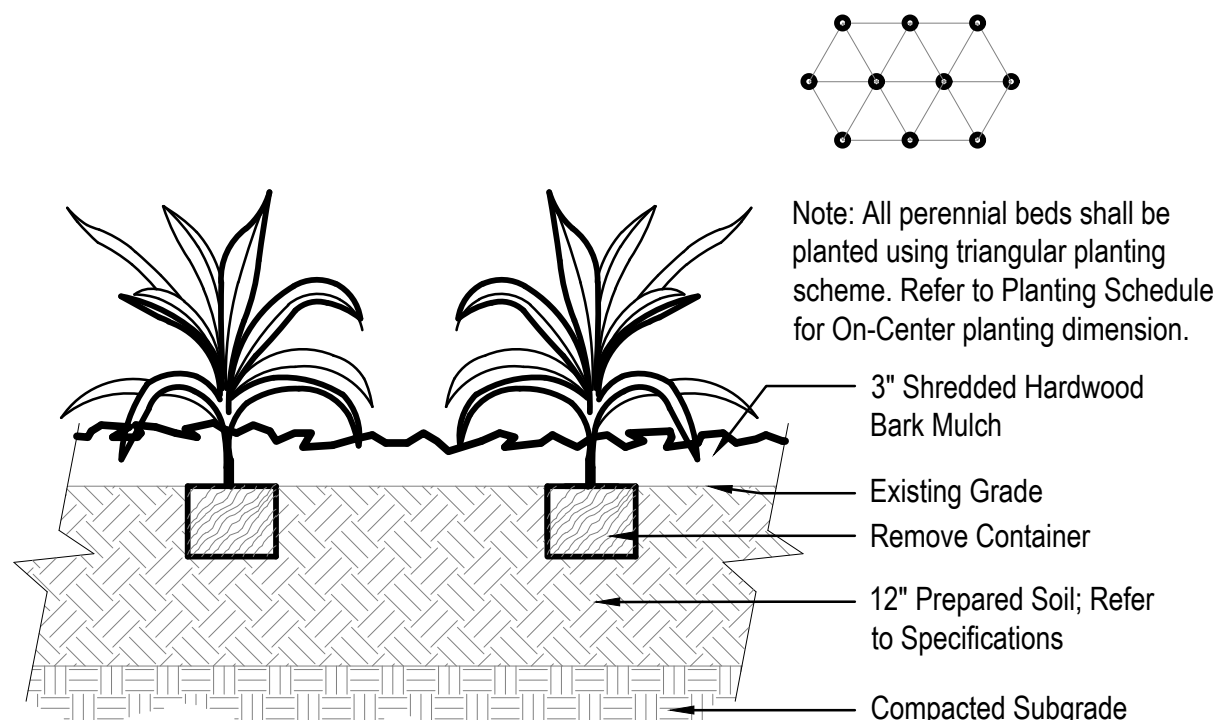
7 METAL EDGING
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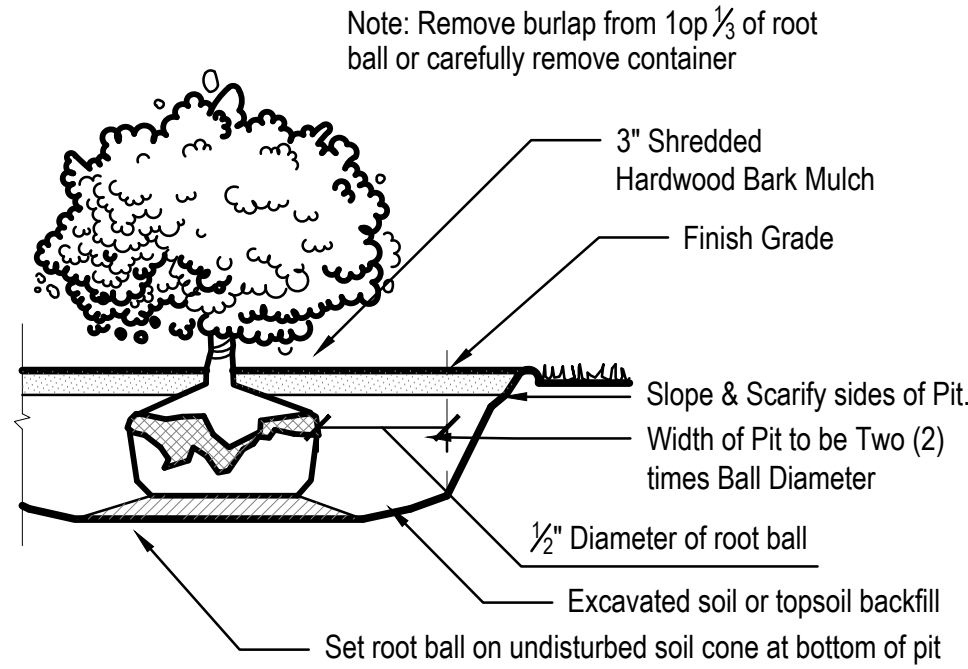
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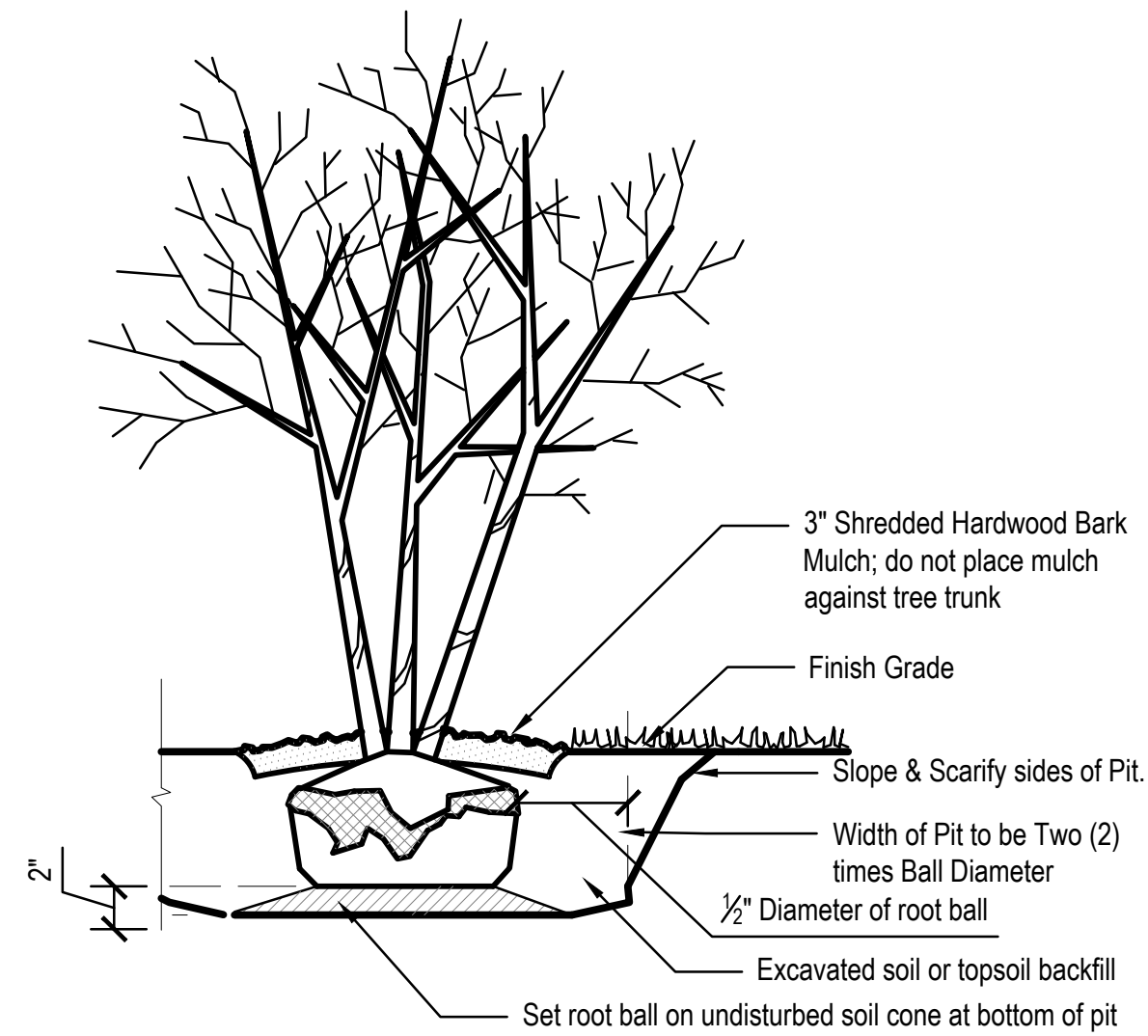
5 SPADE EDGE
Scale: Not to Scale



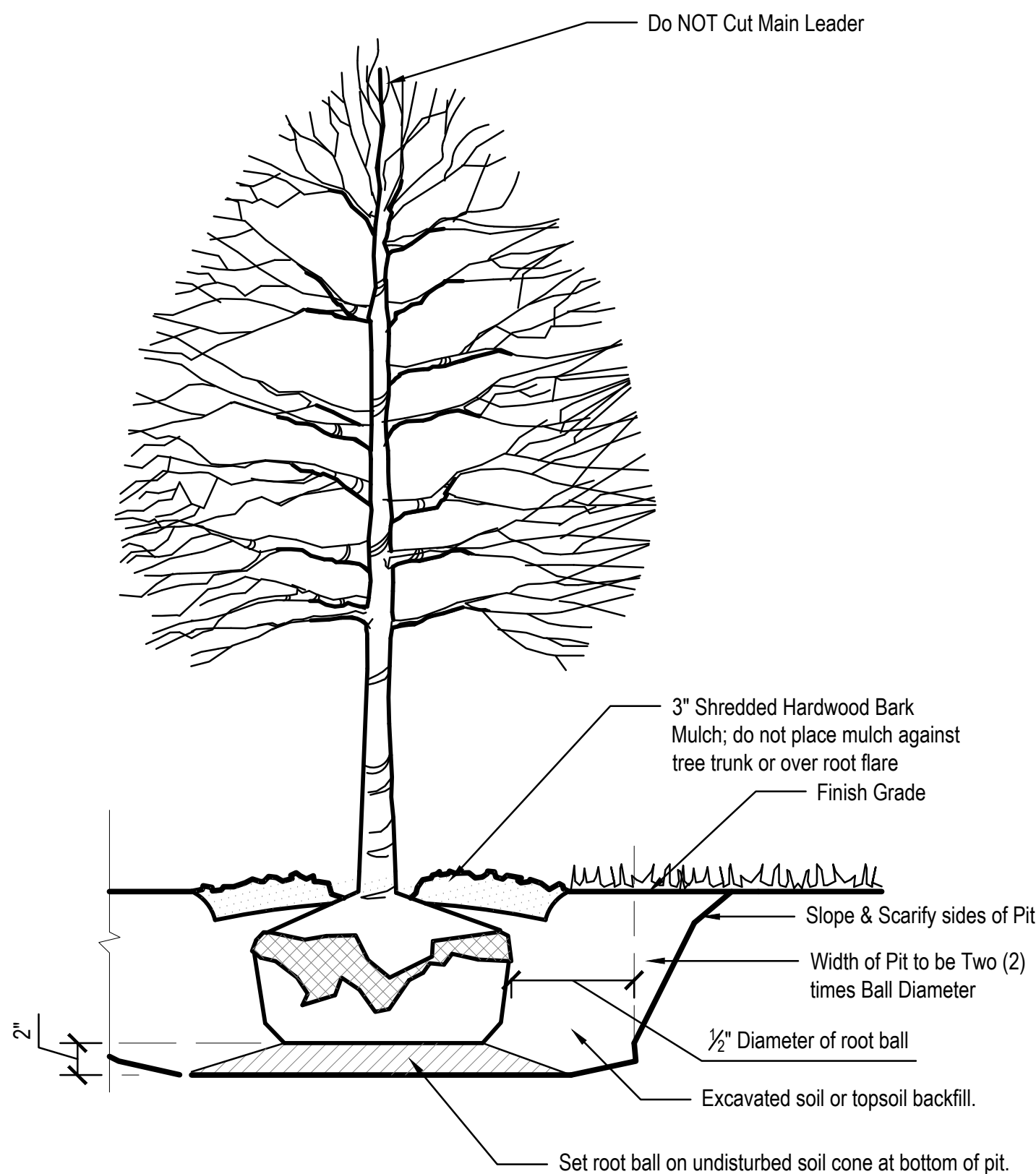
4 PERENNIAL or ORNAMENTAL GRASS
Scale: Not to Scale



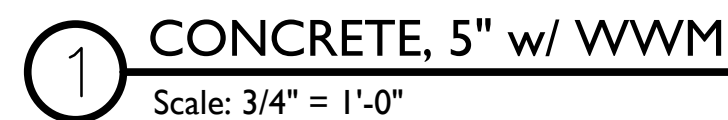
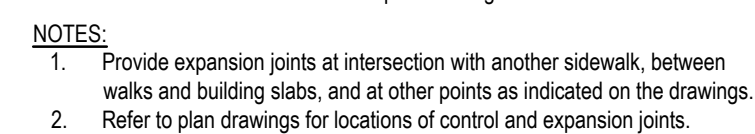
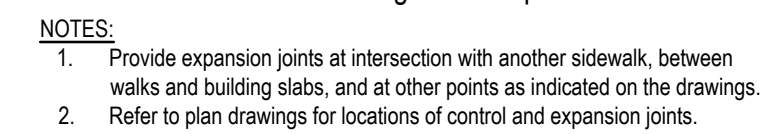
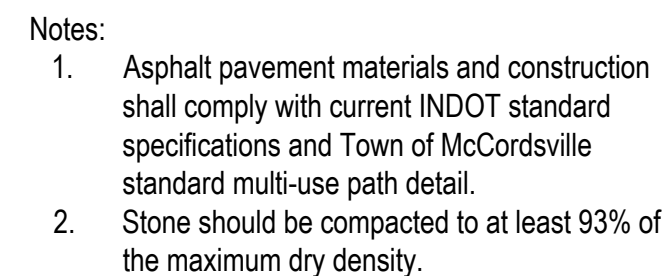
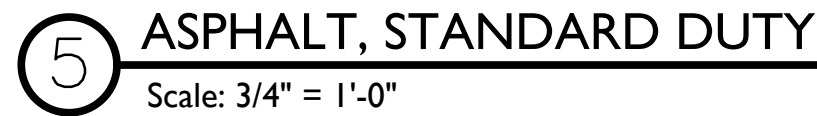
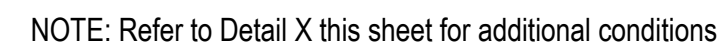
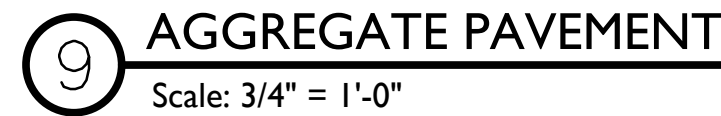
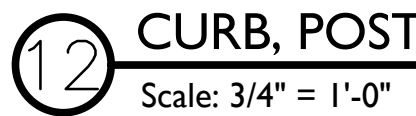
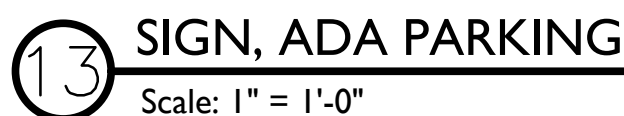
3 SHRUB
Scale: Not to Scale

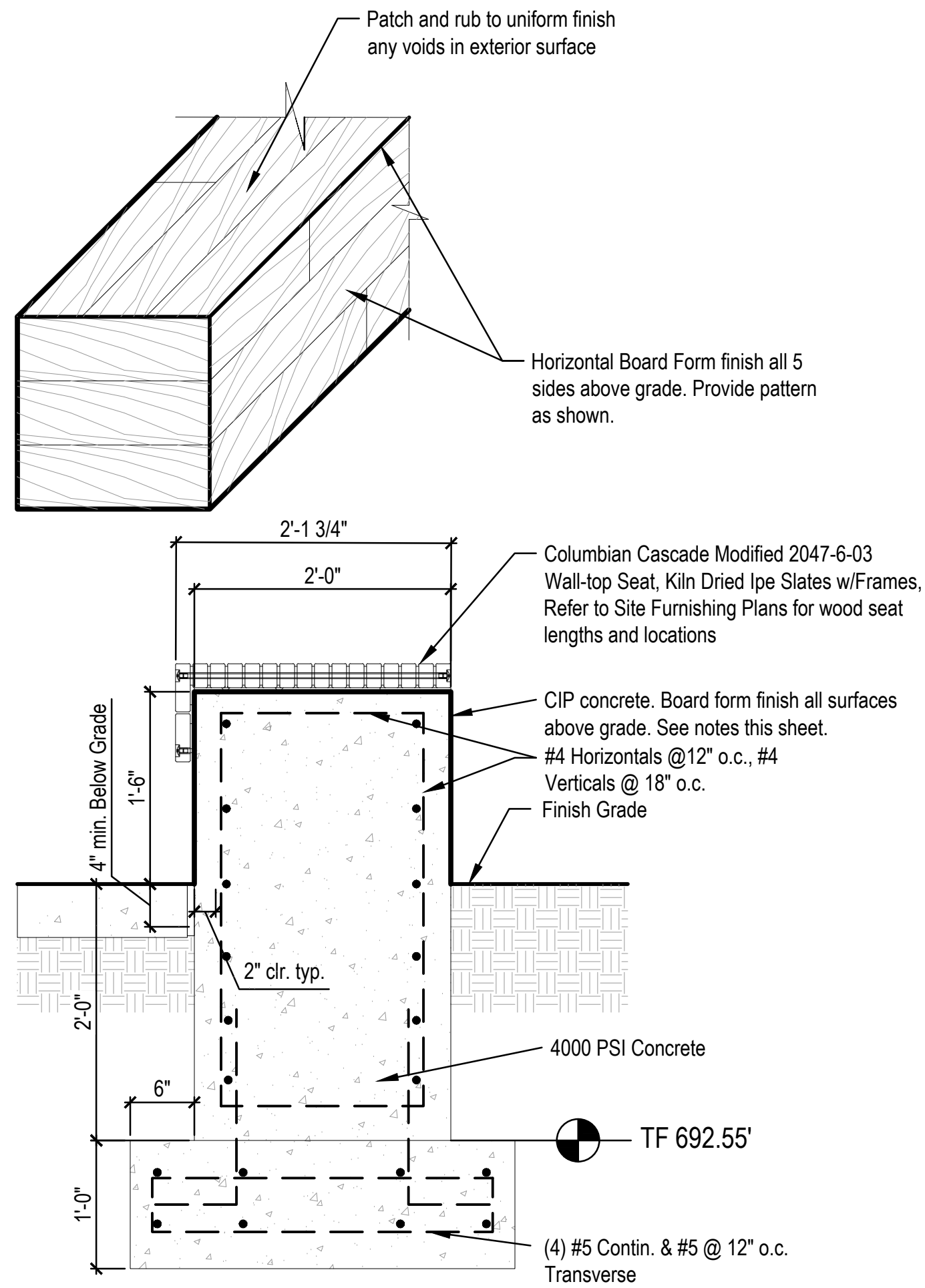


2 MULTI-STEM TREE
Scale: Not to Scale



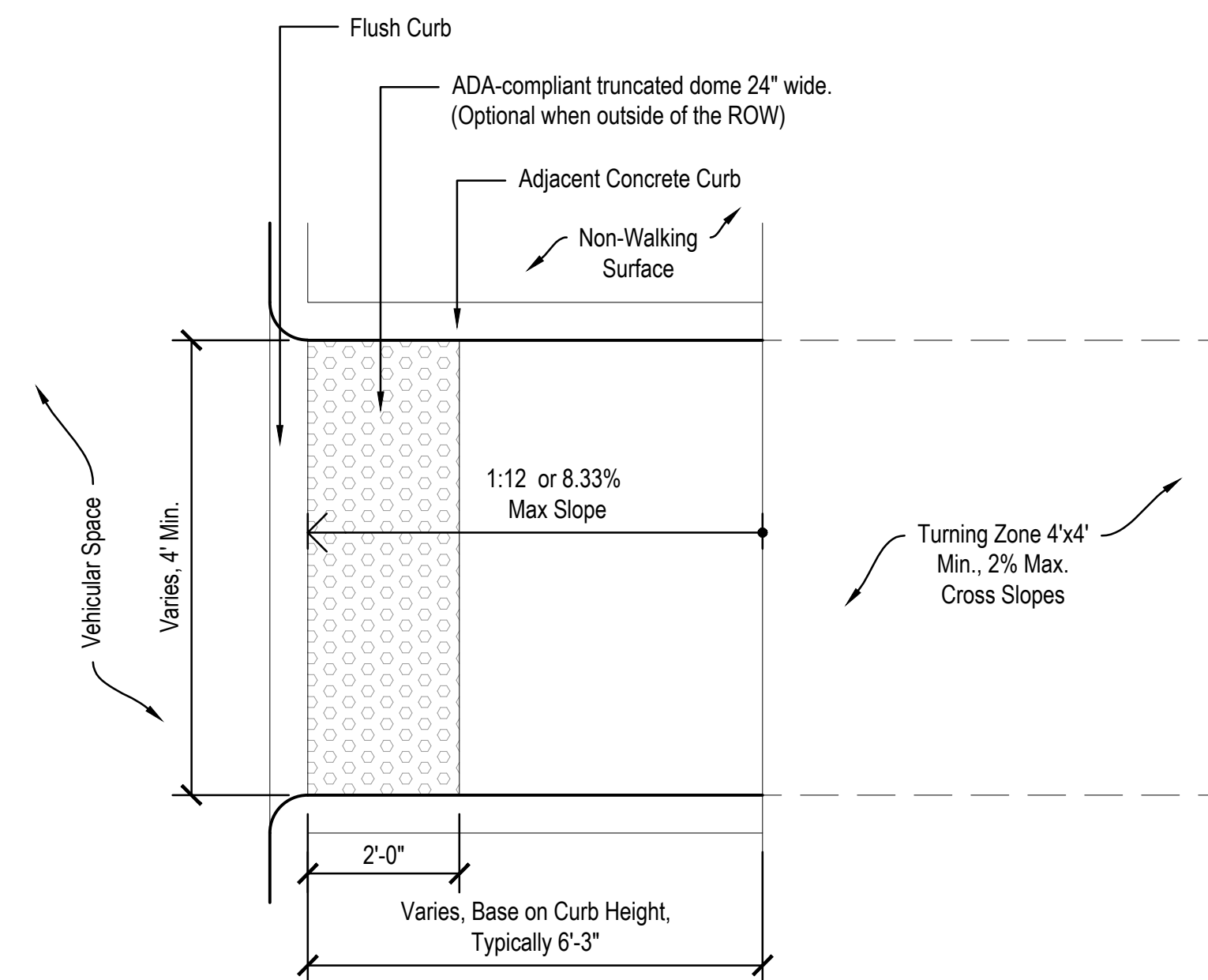
1 SHADE TREE
Scale: Not to Scale



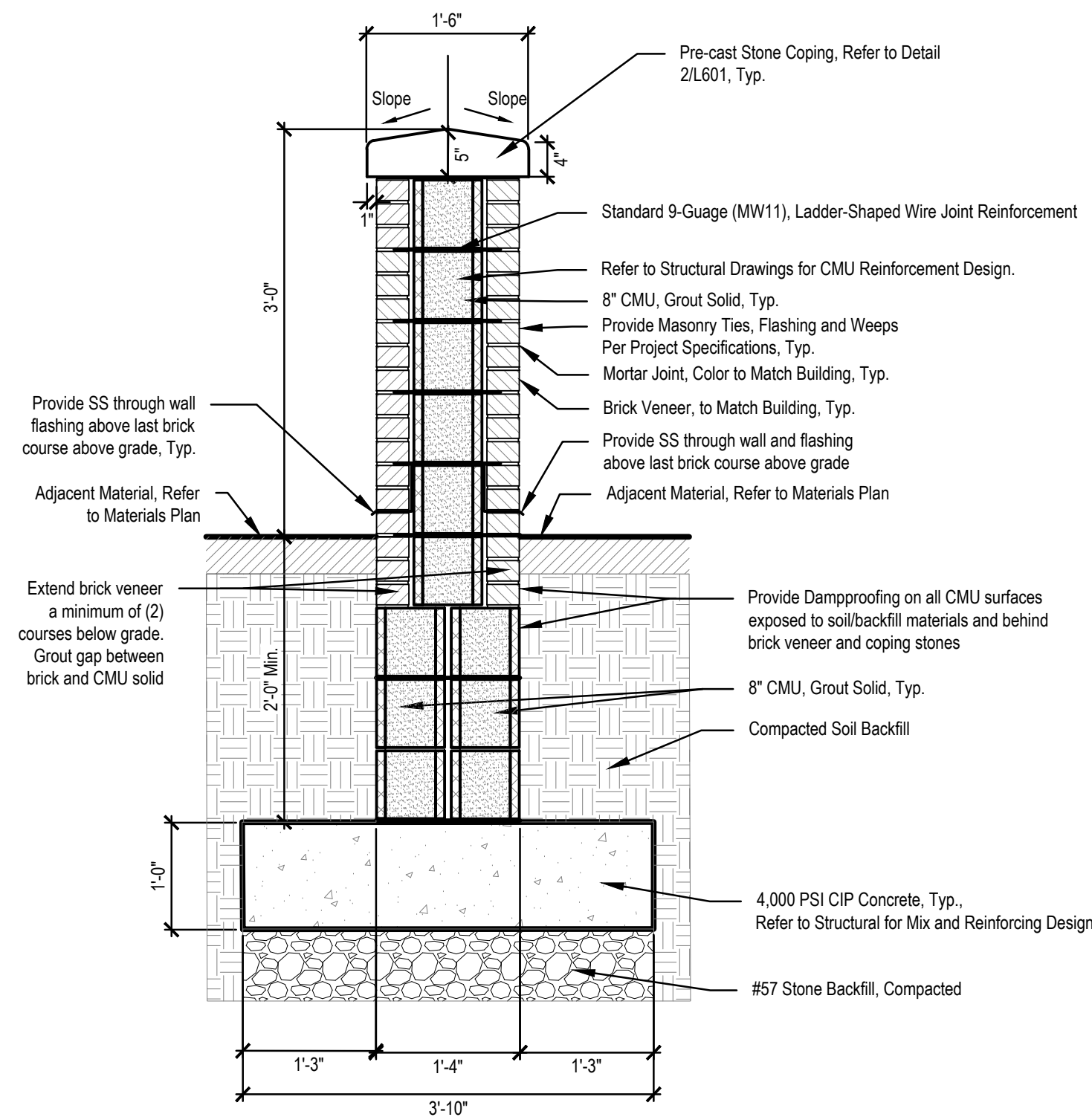


6 CAST IN PLACE SEAT WALL W/ WOOD SEAT
Scale: 1" = 1'-0"

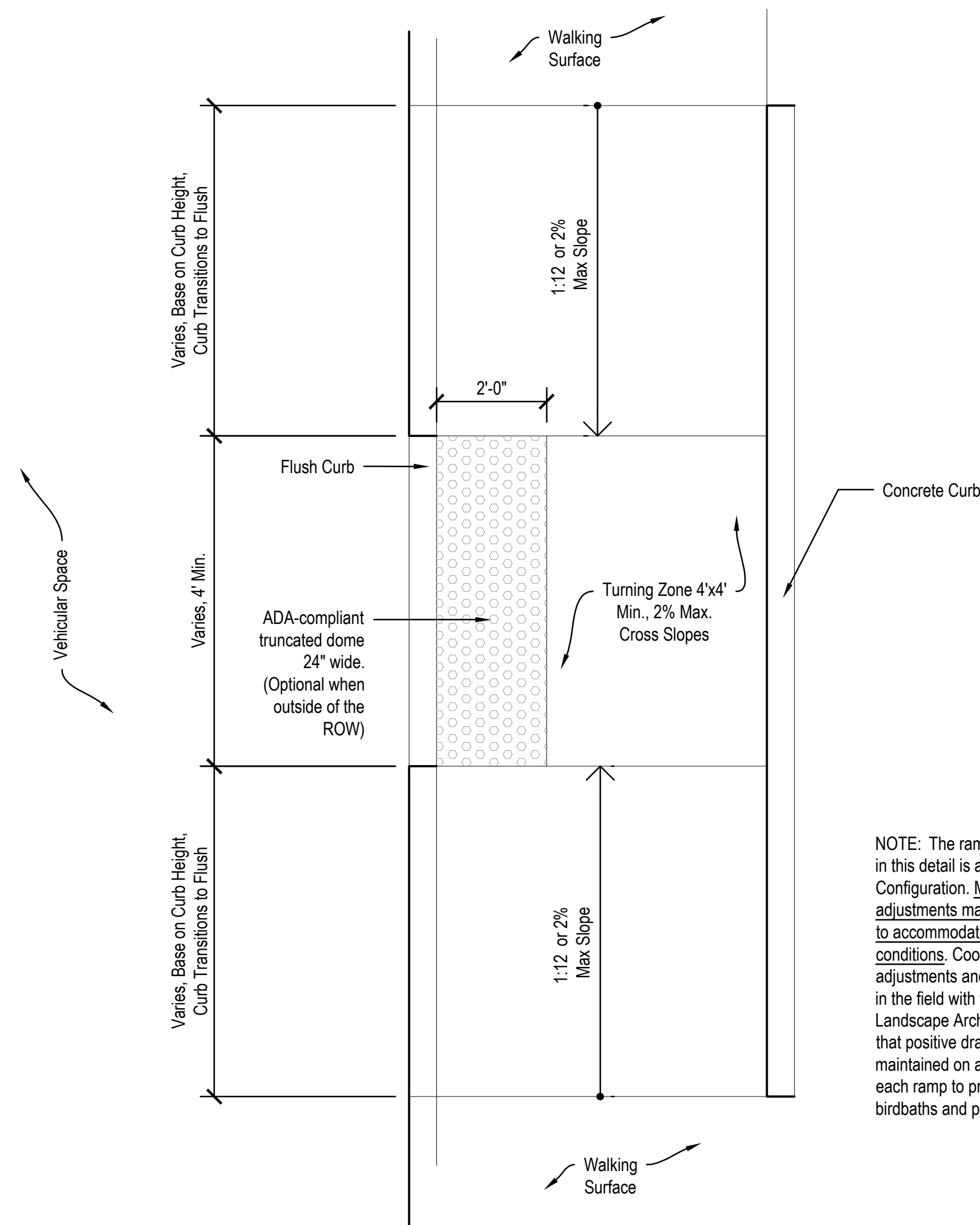
NOTE: The ramp type shown in this detail is a Prototypical Configuration. Minor adjustments may be required to accommodate specific field conditions. Coordinate adjustments and alterations in the field with the Landscape Architect. Ensure that positive drainage is maintained on and around each ramp to prevent birdbaths and ponding.



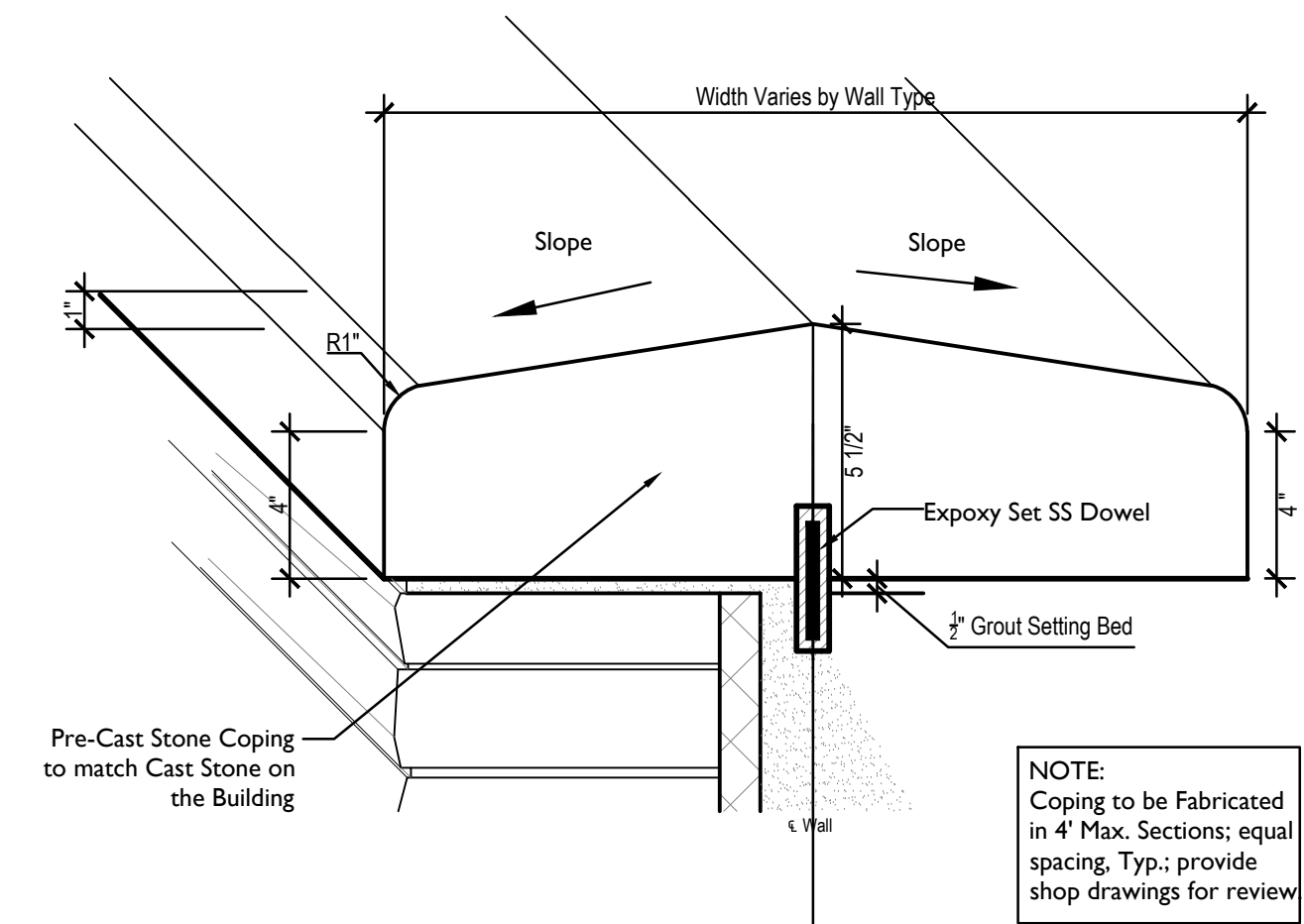
5 CURB RAMP, STRAIGHT
Scale: 1/2" = 1'-0"



4 SCREEN WALL - 3' HT.
Scale: 3/4" = 1'-0"

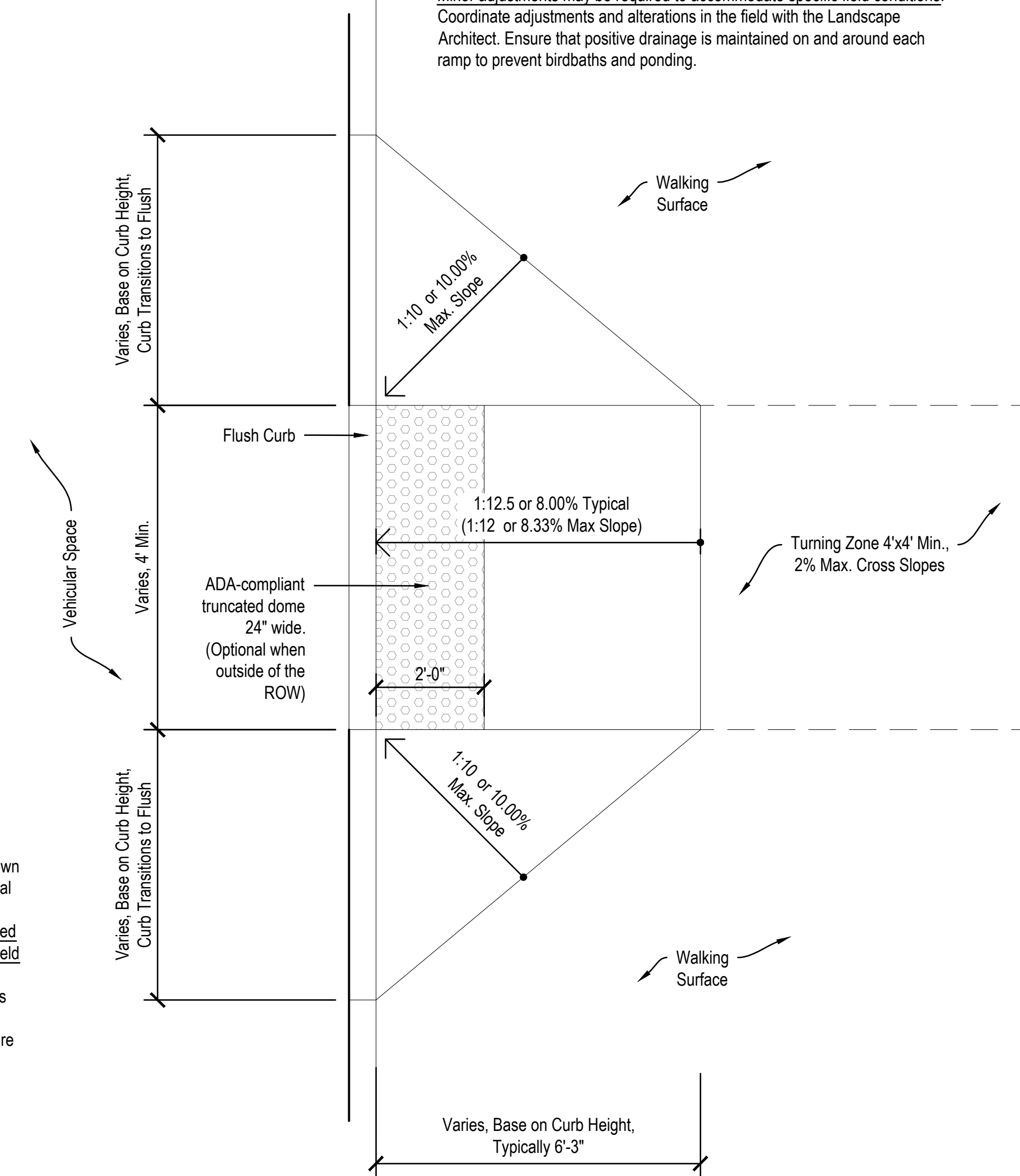


3 CURB RAMP, PARALLEL
Scale: 1/2" = 1'-0"



2 PRE-CAST STONE COPING
Not to Scale

NOTE: The ramp type shown in this detail is a Prototypical Configuration. Minor adjustments may be required to accommodate specific field conditions. Coordinate adjustments and alterations in the field with the Landscape Architect. Ensure that positive drainage is maintained on and around each ramp to prevent birdbaths and ponding.

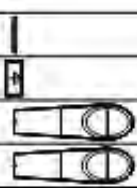


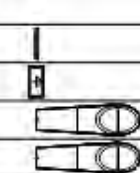
1 CURB RAMP, DOUBLE FLARE
Scale: 1/2" = 1'-0"

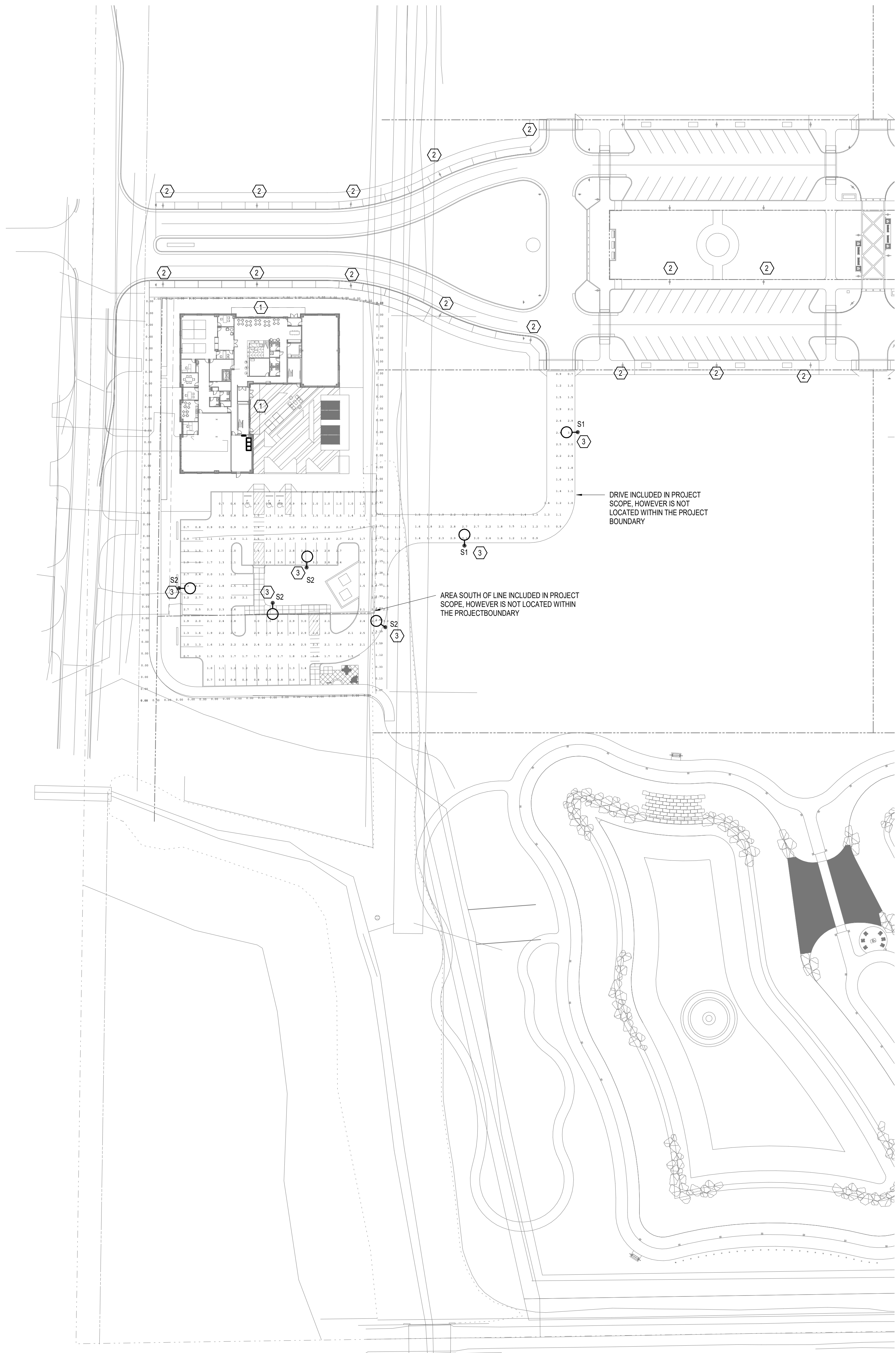
| Revision | Date | Description |
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8/7/2023 2:52:58 AM Autodesk Docs/121179 - Ninestar McCord Sq/20254 Ninestar Connect MEPT V22.rvt

| LIGHTING FIXTURE SCHEDULE - EXTERIOR | | | | | | | | | | | | |
|--------------------------------------|---|--------------------|------|-------|-------|----------|--------|----------|-------|--------------|----------|---|
| NOTES: | | | | | | | | | | | | |
| UNIT ID | BASE MANUFACTURER | EQUAL MANUFACTURER | LAMP | VOLTS | WATTS | UNITS | LUMENS | UNITS | CCT | LOCATION(S) | MOUNT | DESCRIPTION |
| S1 | US ARCH LTG: VLL-LED-PLED3-W-80LED-1050mA-X-WW-1-X-TPR7 | | LED | 120 V | 135 W | /FIXTURE | 16,500 | /FIXTURE | 3500K | SITE | 20' POLE | LED LIGHT POLE WITH TYPE 3 DISTRIBUTION, INTEGRAL PHOTOCELL, 20' ROUND TAPERED ALUMINUM POLE. |
| S2 | US ARCH LTG: VLL-LED-PLED4-W-80LED-1050mA-X-WW-1-X-TPR7 | | LED | 120 V | 135 W | /FIXTURE | 17,600 | /FIXTURE | 3500K | SITE | 20' POLE | LED LIGHT POLE WITH TYPE 4 DISTRIBUTION, INTEGRAL PHOTOCELL, 20' ROUND TAPERED ALUMINUM POLE. |
| SC1 | AAL: RNR-4-5-3K8-SM-DL-UNV-DF-X | | LED | 120 V | 0 W | /FIXTURE | 2000 | /FIXTURE | 3500K | CANOPY | RECESSED | 4' RECESSED LINEAR DOWNLIGHT WITH FLANGE, WET LOCATION LISTED, 80' OR MIN. |
| SC1E | AAL: RNR-4-5-3K8-SM-DL-UNV-DF-X-EM | | LED | 120 V | 0 W | /FIXTURE | 2000 | /FIXTURE | 3500K | CANOPY | RECESSED | SAME AS TYPE SC1 WITH INTEGRAL BATTERY BACKUP. |
| SW1E | CURRENT: SQ2-50-3K7-FT-120-X-PCU-EH | | LED | 120 V | 50 W | /FIXTURE | 5000 | /FIXTURE | 3500K | EGRESS | SURFACE | LED WALL PACK WITH INTEGRAL BATTERY BACKUP, FINISH PER ARCHITECT, FORWARD THROW OPTIC. |

| Luminaire Schedule | | | | | | |
|---|-----|-------------------------------|---------------------------------|-------|------------------|------------|
| Symbol | Qty | Label | Description | LLF | Luminaire Lumens | BUG Rating |
|  | 9 | RNR-X-4-5-35K8-SM-DL (1) | RNR-X-4-5-35K8-SM-DL | 0.900 | 2301 | B1-U0-G1 |
| | 2 | SG1-20-3K7-FT-Visor | SG1-20-3K7-FT-Visor | 0.900 | 1429 | B1-U1-G0 |
| | 2 | VLL-PLED-IV-40LED-1050mA-40K | VLL-PLED-IV-40LED-1050mA-40K | 0.900 | 17694 | B3-U0-G3 |
| | 4 | VLL-PLED-III-W-40LED-1050mA-4 | VLL-PLED-III-W-40LED-1050mA-40K | 0.900 | 16554 | B3-U0-G3 |

| Luminaire Schedule | | | | | | |
|---|-----|-------------------------------|---------------------------------|-------|------------------|------------|
| Symbol | Qty | Label | Description | LLF | Luminaire Lumens | BUG Rating |
|  | 9 | RNR-X-4-5-35K8-SM-DL (1) | RNR-X-4-5-35K8-SM-DL | 0.900 | 2301 | B1-U0-G1 |
| | 2 | SG1-20-3K7-FT-Visor | SG1-20-3K7-FT-Visor | 0.900 | 1429 | B1-U1-G0 |
| | 2 | VLL-PLED-IV-40LED-1050mA-40K | VLL-PLED-IV-40LED-1050mA-40K | 0.900 | 17694 | B3-U0-G3 |
| | 4 | VLL-PLED-III-W-40LED-1050mA-4 | VLL-PLED-III-W-40LED-1050mA-40K | 0.900 | 16554 | B3-U0-G3 |



1 ELECTRICAL SITE LIGHTING PLAN
1" = 50'-0"

SHEET KEYNOTES

- SEE E120 SERIES SHEETS FOR BUILDING MOUNTED LIGHTING.
- EXISTING LIGHT POLE.
- MOUNT LIGHT FIXTURE AND POLE ATOP CONCRETE 6" BASE. COORDINATE FINAL PLACEMENT WITH EXISTING UTILITIES AND OTHER DISCIPLINES.

GENERAL NOTES

- REFER TO SHEET E-000 FOR GENERAL ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS.
- REFER TO E-000 SERIES SHEETS FOR LIGHT FIXTURE SCHEDULES AND PANEL SCHEDULES.
- WIRE EVERY THIRD HALLWAY FIXTURE. FIXTURES AT EGRESS DOORS AND FIXTURES AT HALLWAY INTERSECTIONS TO BE ALWAYS ON (NO OCCUPANCY SENSOR CONTROL).
- ALL EXTERIOR EQUIPMENT AND DEVICES SHALL BE RAINPROOF AND WEATHER TIGHT.
- ALL WORK SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL CODES AND ORDINANCES PERTAINING TO THE WORK ON THIS PROJECT.
- WIRING SYSTEM SHALL BE CONDUIT AND CONDUCTOR. USE SOLID CONDUCTOR FOR SIZE #10AWG AND SMALLER. USE STRANDED CONDUCTOR FOR LARGER SIZES.

NOT
FOR CONSTRUCTION

NINESTAR CONNECT
McCORDSVILLE SQUARE
TBD

100% DESIGN
DEVELOPMENT

△ REVISIONS:

DATE:

08/04/2023

arcDESIGN PROJECT NUMBER:

21179

CLIENT PROJECT NUMBER:

DRAWN BY:

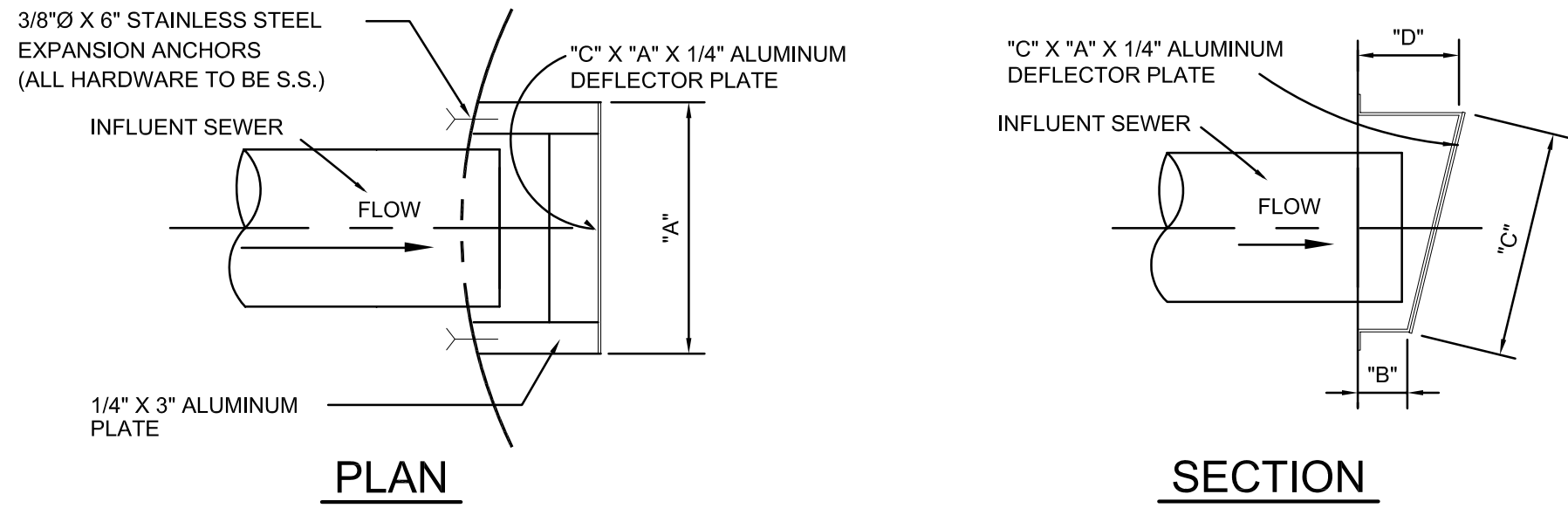
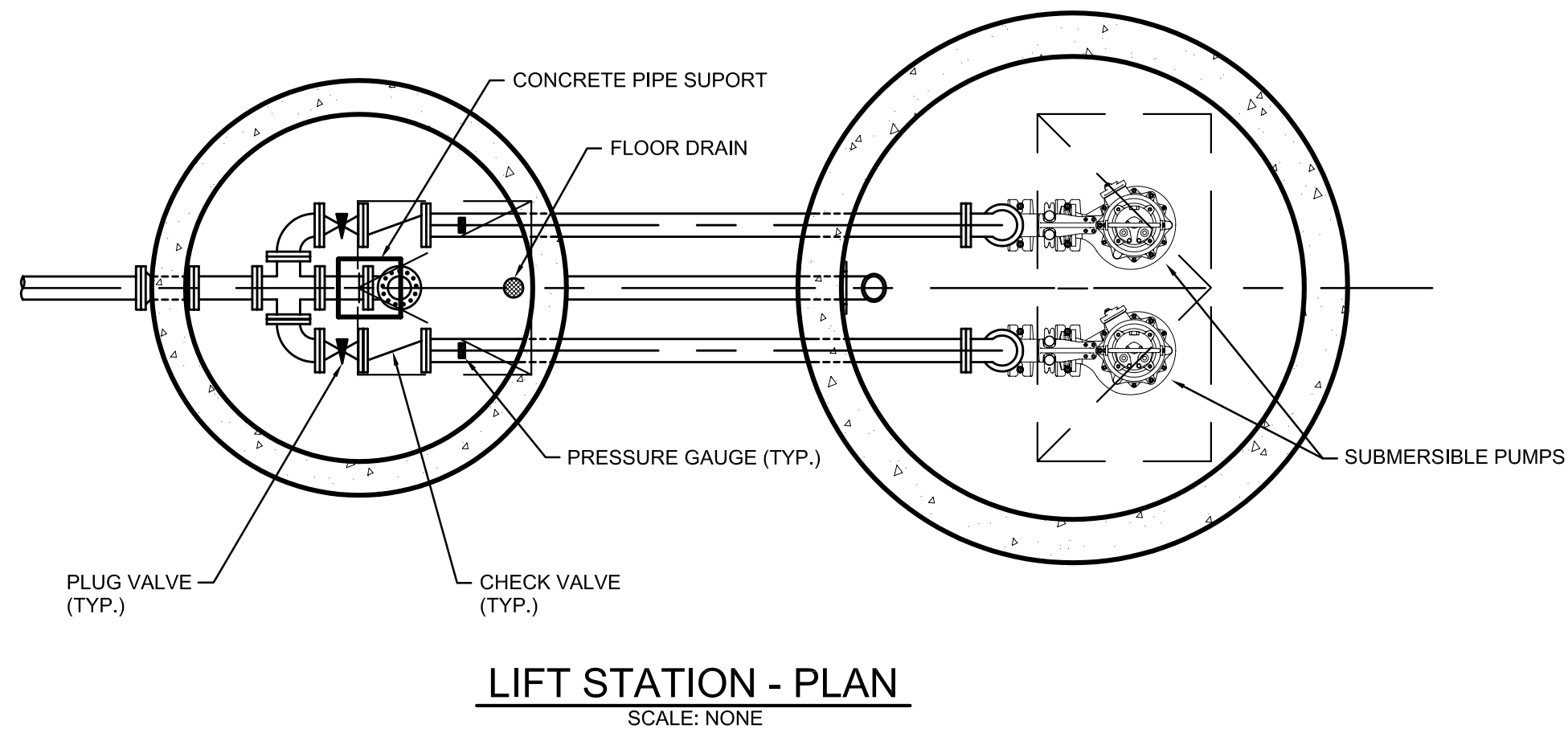
Author

DRAWING TITLE:

ELECTRICAL
SITE LIGHTING
PLAN

DRAWING NUMBER:

E100



| MATERIALS SCHEDULE | | | | |
|---------------------|-----|-----|-----|-----|
| INFLUENT SEWER I.D. | "A" | "B" | "C" | "D" |
| 6"-10"Ø | 19" | 5" | 13" | 10" |
| 10"-14"Ø | 23" | 5" | 18" | 10" |
| 14"-18"Ø | 27" | 5" | 23" | 10" |
| 18"-22"Ø | 31" | 5" | 28" | 10" |
| 22"-26"Ø | 35" | 5" | 37" | 10" |

- GENERAL NOTES
- Actual lift station dimensions, control settings, & pump selection to be indicated by the design engineer's certification sheet.
 - Pumps "A" and "B" shall be identical, centrifugal, submersible, solids handling, non-clog design capable of handling 3" sphere solids, fibrous material, sludge, and material found in typical raw sewage. Fit replaceable bronze wear ring to volute. Pumps shall be Flygt, Hydromatic or approved equal. Manufacturer shall warrant the pumps for five years after installation.

All mating surfaces intended to be watertight shall be machined and fitted with nitrile rubber o-rings with sealing complete when metal-to-metal contact is made, resulting in controlled compression of o-rings without specific torque limit. Fasteners shall be 316 S.S.

Mechanical shaft seal system running in an oil reservoir shall have separate, constantly lubricated lapped seal faces. The lower seal unit between media and oil reservoir shall consist of one stationary seat and one rotating ring held in place by its own spring. The rotating seat ring and the stationary seat ring shall be made of Tungsten-Carbide. The lower seal shall be removable without disassembling the seal chamber. The upper seal between seal chamber and motor shall be of the same design with its own spring. Seals shall be maintenance free, but shall be easily inspectable.

The lift station control panel shall be stainless steel construction, NEMA 4X rating mounted on an aluminum pedestal. The control cabinet shall house the following controls and indication: Warning lights for each pump, Indicator lights, Common alarm, H-O-A switches, Silence button, Pump alternator, Warning reset buttons, Relays, Heater, Surge protection, Phase monitoring, Hour meters, and a GFI 110 volt, single phase convenience outlet. Lower seal failure alarm shall be engaged by seal failure sensor provided in the seal chamber, which senses water intrusion through lower seal. A mini-float in the motor chamber which signals pump shutdown and alarm upon water intrusion through upper seal may be acceptable when approved by Town of McCordsville.

Over temperature alarm and pump shutdown shall be engaged by heat sensor attached to the motor windings. Motor winding and stator lead insulation shall be class F with maximum temperature capability of 155 degree C. Housing shall be filled with High-Dielectric Oil. Air filled housing may be acceptable when approved by Town of McCordsville. Pump and motor shall be designed to operate partially or fully submerged in pumped media without the use of cooling jackets.

Rail system shall enable the easy removal of the pump without the need for a person to enter the wet well. A non-corrosive FRP I-beam or schedule 40 stainless steel guide rails shall be provided for each pump. The guide rail shall be supported at the bottom by the discharge elbow, aligned perfectly plumb and securely affixed to access frame. One intermediate guide rail support is required for each 9' of guide rail length.

- Check valve shall use packing material to seal the integral shaft or hinge pin. O-ring side plugs and O-ring shall not be used to seal integral shaft or hinge pin. Check valve shall be provided with bolted covers for easy access to the discs and shall be outside adjustable weight & Lever and shall be Clow F-5382 or approved by Town of McCordsville.
- Provide sufficient lift chain, float mounting cable, and pump power & control cable to enable non-spliced field adjustment. 304L stainless steel lift chain w/ 4:1 safety factor shall have a minimum workload limit of 1100 pounds. Pump power & control cables shall be suitable for submersible pump applications and this shall be indicated by a code/legend permanently embossed on the cable. Provide sleeve and pin on pump control cable and locate on bracket near hatch.
- Plug valve shall be hand lever operated and shall be Dezurik Fig. 118, Clow F-5412, or Town of McCordsville approved equal.
- Pressure gauge shall be Terrice Model 450 LFB or Town of McCordsville approved equal. Drill & tap run of pipe to install pressure gauge.
- Piping not within 2 feet of wet well and valve pit shall be DI Class 53, PVC ASTM D2241 SDR 21, PVC AWWA C900 or C905, or Town of McCordsville approved equal.
- Piping in and within 2 feet of wet well and valve pit shall be class 53 flanged ductile iron pipe.
- Piping, valves, and fittings in wet well and valve pit shall be factory primed Tnemec series 140 - 1211 to a dry film thickness of 5.0 to 11.0 mils and shall be field painted with Tnemec series 69 to a dry film thickness of 5.0 to 6.0 mils.

- Lift station and valve pit manholes shall be pre-cast concrete in accordance with ASTM C-478, with rubber gaskets equal to ASTM-443 with double row of 1/2" Hamilton Kent-Seal Extrudable Preformed Gasket material or Town of McCordsville approved equal. Exterior joints to have butyl rubber applied over the joint to a minimum of 1'-0" above and below the joint. Interior joints are to be sealed with non-shrink grout or precoat plug material.
- Valve pit shall be constructed on undisturbed soil or compacted granular material compacted with ½ inch nominal size to 95% standard proctor density.
- Horizontal projections from precast integral base and riser may be required to enable the weight of the vertical soil ring above the projection to resist buoyancy forces. See design engineer's certification sheet.
- Camlock flanged coupler and dust cap shall be used within valve vault. Camlock coupling and eccentric plug valve on by-pass line shall be 6" diameter with transition to force main size occurring with concentric reducer placed on top of base elbow. Fix operating nut for eccentric plug in vertical position to enable wrench operation from surface. Layout of all valve vault fittings and equipment to be based upon by-pass line being up close to hatch opening as shown.
- Aluminum hatches shall be Bilco, Halliday or Town of McCordsville approved equal. Leaf shall be ¼" aluminum diamond plate live load rated to 300PSF. Access frames and covers shall be 1/4 inch thick one-piece, mill finish, extruded aluminum frame, incorporating a continuous concrete anchor. All surfaces contacting concrete shall have a bituminous coating. Hatch shall be provided with type 316 S.S. hardware throughout, compression spring operators, automatic hold-open arm with release handle, and non-corrosive locking bar used in conjunction with a Town of McCordsville supplied padlock.

- Sewer connection to wet well shall be KOR-N-SEAL, A-LOK, DURA-SEAL, or Town of McCordsville approved equal.
- Force main penetrations of wet well shall be KOR-N-SEAL, A-LOK, DURA-SEAL, or Town of McCordsville approved equal.
- Automatic pump control system shall include all necessary items and appurtenances, which might normally be considered a part of a complete system. System shall be supplied by one manufacturer, shall be factory assembled, wired and tested, and shall be per complete electrical drawings and instructions. Major components and sub-assemblies shall be identified as function with laminated, engraved, bakelite nameplates. System shall be built in a NEMA 4X S.S. enclosure suitable for the specified horsepower and voltage of the pumps. The outer door of the panel shall be a hinged dead front with provisions for padlocking. Inside shall be a separate hinged panel to protect all electrical components, H-O-A switches, run lights, circuit breakers, etc., mounted such that only the faces protrude through said panel with no wiring fixed to said panel. The manufacturer shall warrant the control center for one year after installation covering 100% parts and labor.

Provide the services of a factory-trained, qualified representative to inspect, to adjust, and to place the system in trouble-free operation and to instruct the operating personnel in the proper operation and care of the system.

All major components of control center shall be available from local sources. Pump manufacturer shall accept the control center in writing to ensure unit responsibility and warranty.

Provide a disconnect switch housed in a separate NEMA 4X S.S. enclosure with external operation handle capable of being locked in the "on" position. Provide 480 volt, 200 amp, 4 wire weatherproof receptacle, Crouse Hinds AR204 or equal, to match plug on existing portable generator.

Provide a Omni-site.net Crystall WM housed within the NEMA 4X control panel.

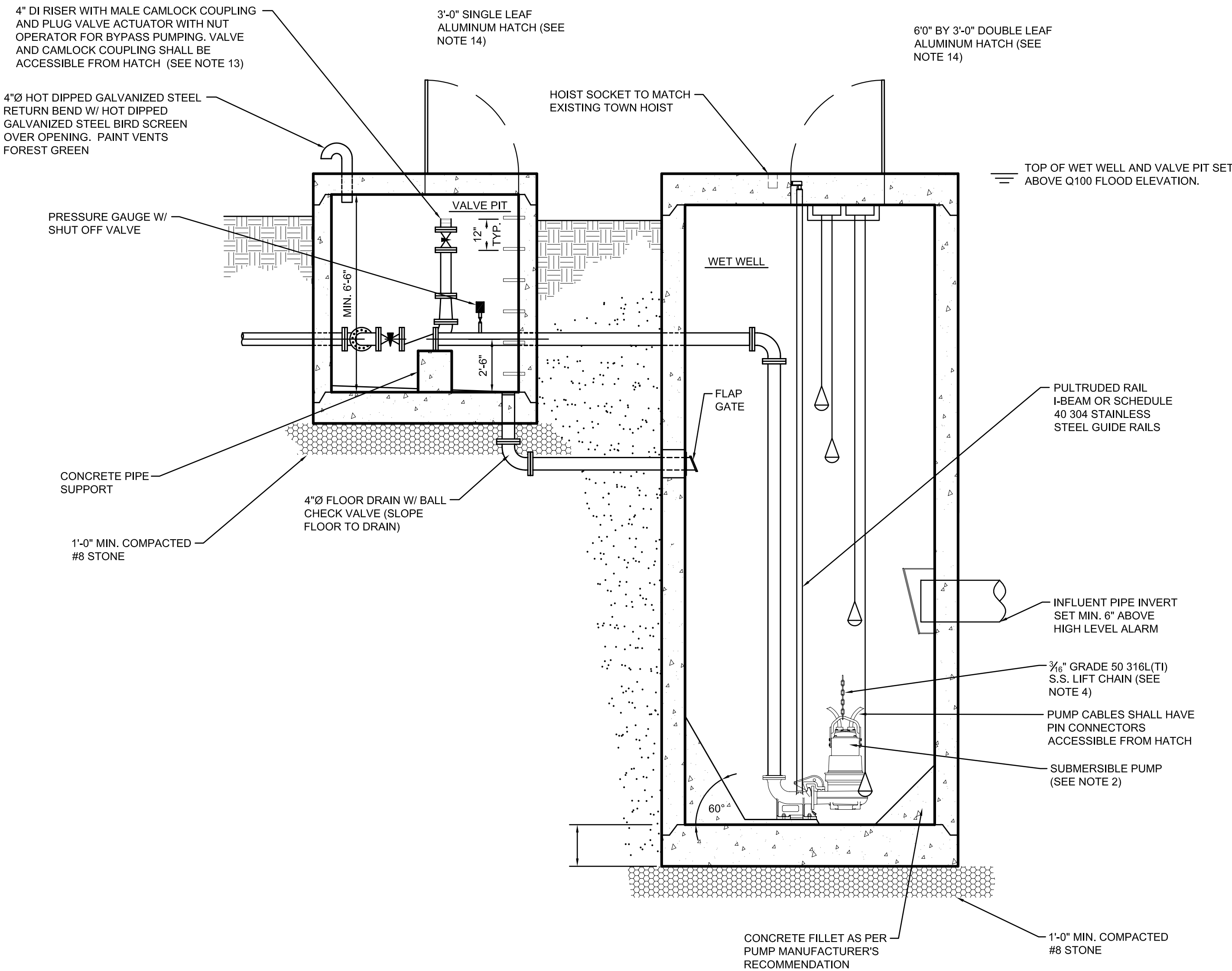
An incoming power terminal block shall be located at the bottom of the control enclosure. A lightning arrestor shall be provided at the terminal block and connected to each line of the incoming side of the power input terminals. A single main fusible/breaker disconnect switch of adequate size to provide power for control, operation, and appurtenant components shall be provided. Provide a circuit breaker and magnetic starter with each leg manual reset overload protected for each pump. Starters shall have auxiliary contacts on 3Ø applications to operate both pumps simultaneously. Provide a circuit breaker and transformer to power the control panel with 1Ø, 115 volt service for all control functions. Provide a green "run" light and H-O-A switch to enable field connections.

Materials and installation of the required equipment grounding shall be in accordance with NEC section 250-83(c). All wiring shall have not less than 600 volt insulation. Wiring and buss shall be in accordance with NEC, state, local, and NEMA standards. All wiring shall be color coded.

Minimum 4" diameter, schedule 40 conduit shall be provided from wet well to control panel enabling pump power & sensor cables and float switch cables to be easily pulled. Seal conduit at control panel to prevent sewer gases from entering. All conduits, fittings, or connections shall enter from the bottom of enclosures.

Sump level rise to lead pump run float causes lead pump to operate. Lead pump operating and sump level falling to pumps off float causes lead pump to shut off. Lead pump operating and sump level rising to lag pump run float causes lag pump to operate. Lag pump operating and sump level falling to pumps off float causes both pumps to shut off. Sump level rise to high level alarm causes high level alarm to operate. An alternating relay shall be provided to cause pumps to alternate whenever pumps off float is de-energized. If one pump fails for any reason, the remaining pump shall operate upon sump level rise to lag pump run float. An hour meter shall be provided for each pump to record the elapsed operating time of each pump.

- Four manuals shall be presented to the owner, which shall include the following minimum information: 1) Operation instructions, 2) Maintenance instructions, 3) Recommended spare parts list, 4) Lubrication schedule, 5) Structural diagrams, 6) As-built wiring diagrams, & 7) Bill of materials.



| REVISIONS | | | | RECOMMEND FOR APPROVAL | | 7/12/05 DATE | TOWN OF McCORDSVILLE | SHEET |
|-----------|-------------|------|--|------------------------|--|-----------------|---|----------------|
| REV. NO. | DESCRIPTION | DATE | | | | | | |
| | | | | | | | TOWN STANDARDS SANITARY SEWER LIFT STATION STANDARDS & GUIDELINES | 10 OF 10 |
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