Parkhill

CRWC TYPE IV LANDFILL

Permit Amendment Application

Volume 1 of 4

TCEQ MSW Permit No. 2278A

Collin County, Texas

Prepared For
Construction Recycling and Waste Corporation (CRWC)
2540 E University Dr
McKinney, TX 75069

Prepared By
Parkhill
3000 Internet Boulevard, Suite 550
Frisco, Texas 75034
TBPE F-560

September | 2021

Revision 1 – November 2021

Revision 2 – June 2022

Parkhill Project # 016048.21

380 McKINNEY C&D LANDFILL

MASTER TABLE OF CONTENTS

VOLUME 2

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Part I

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-56

Parkhill Project No.: 016048.21

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment I-3 – Land Ownership Map and List

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

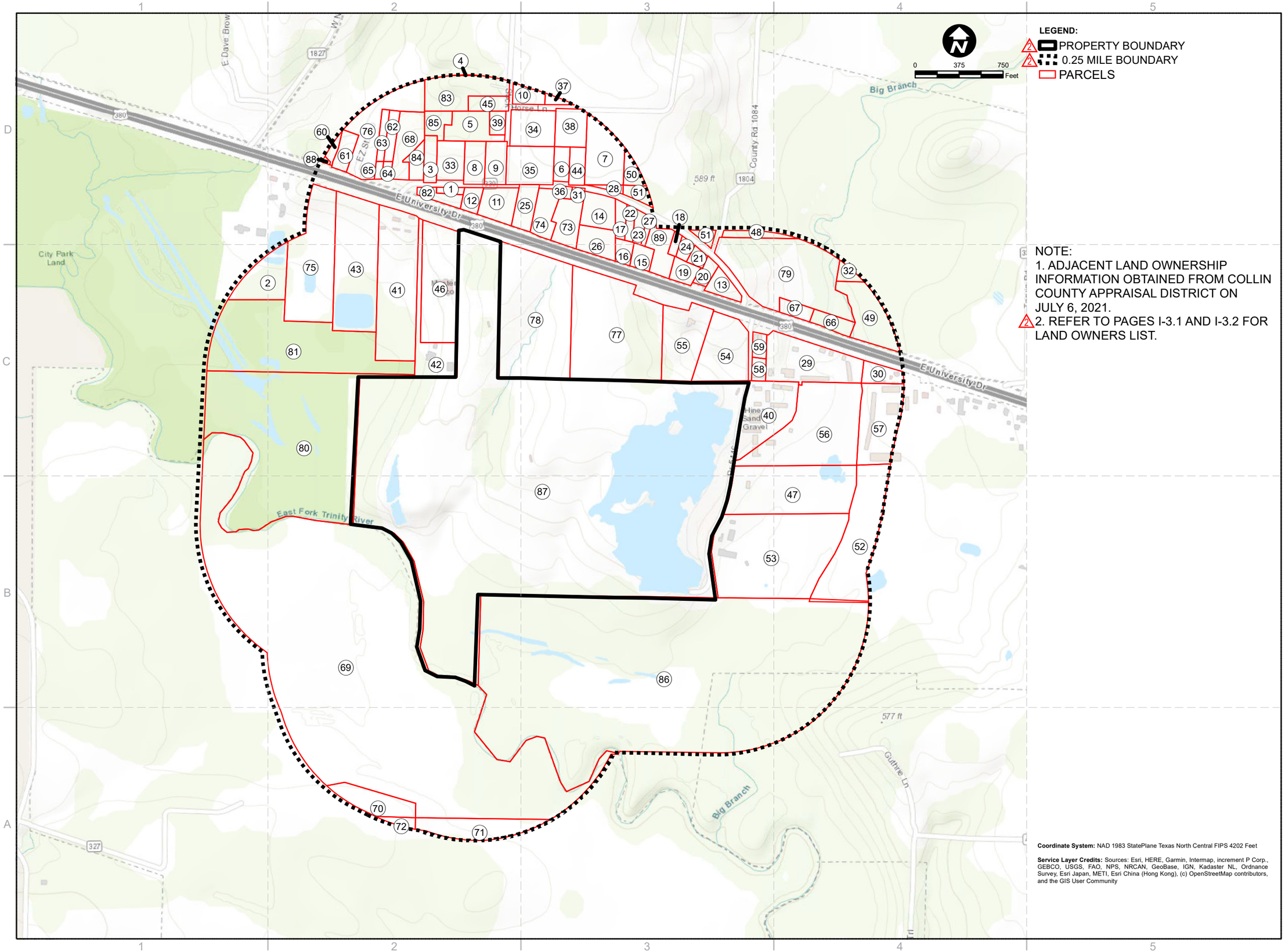
Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment I-3 – Land Ownership Map and List

TABLE OF CONTENTS

FIGURES



NOTE:
1. ADJACENT LAND OWNERSHIP INFORMATION OBTAINED FROM COLLIN COUNTY APPRAISAL DISTRICT ON JULY 6, 2021.
2. REFER TO PAGES I-3.1 AND I-3.2 FOR LAND OWNERS LIST.

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT
CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

LAND OWNERSHIP MAP

FIG.I-3.1

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig I-3.1_Land Ownership Map_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 9:21:25 AM USER: afranklin

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment I-4 – General Maps

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

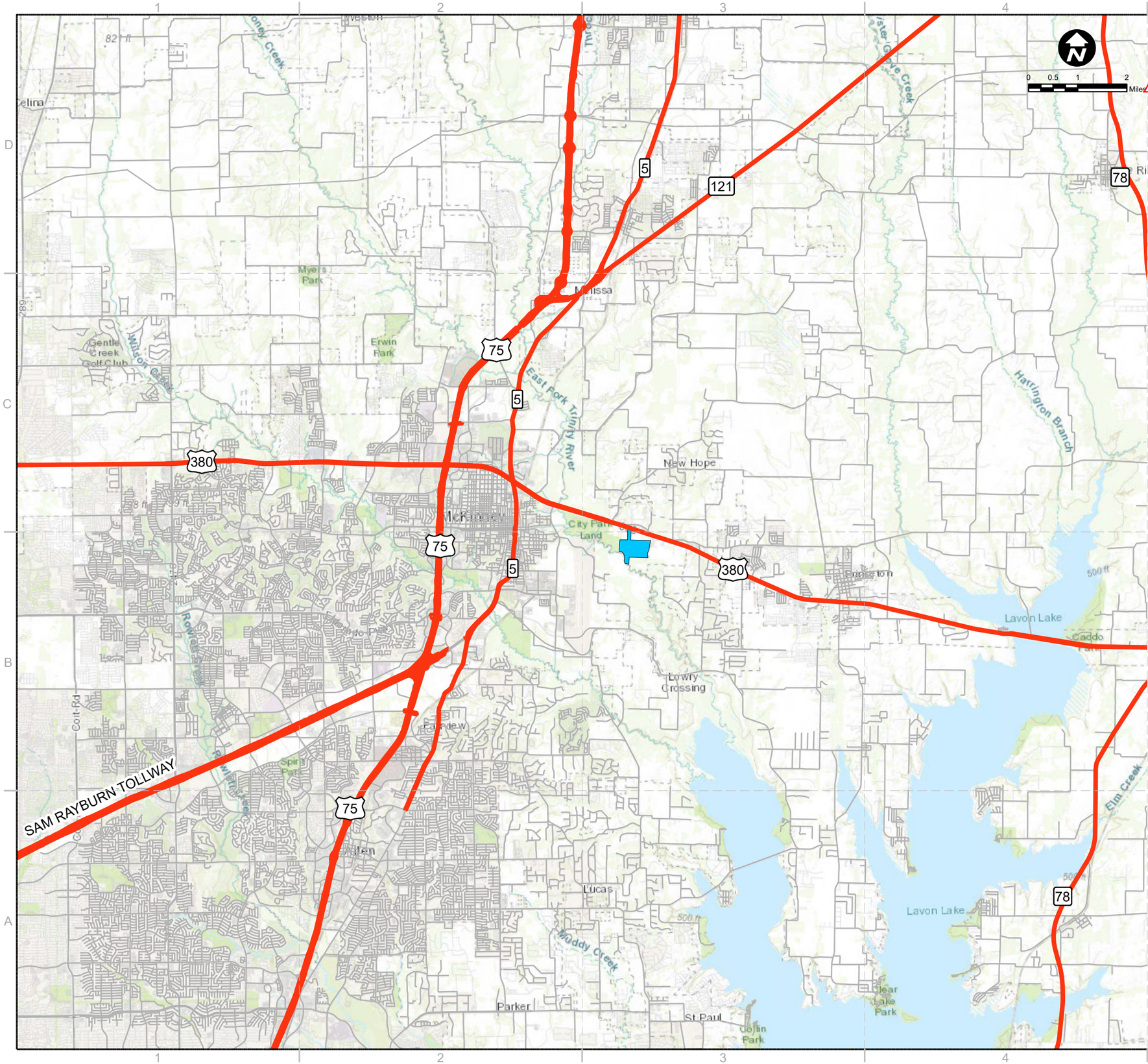
Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment I-4 – General Maps

FIGURES



Texas roadway data obtained from TxDOT GIS database from the TxDOT Roadway Inventory layer updated 3/4/2021.

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT

CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

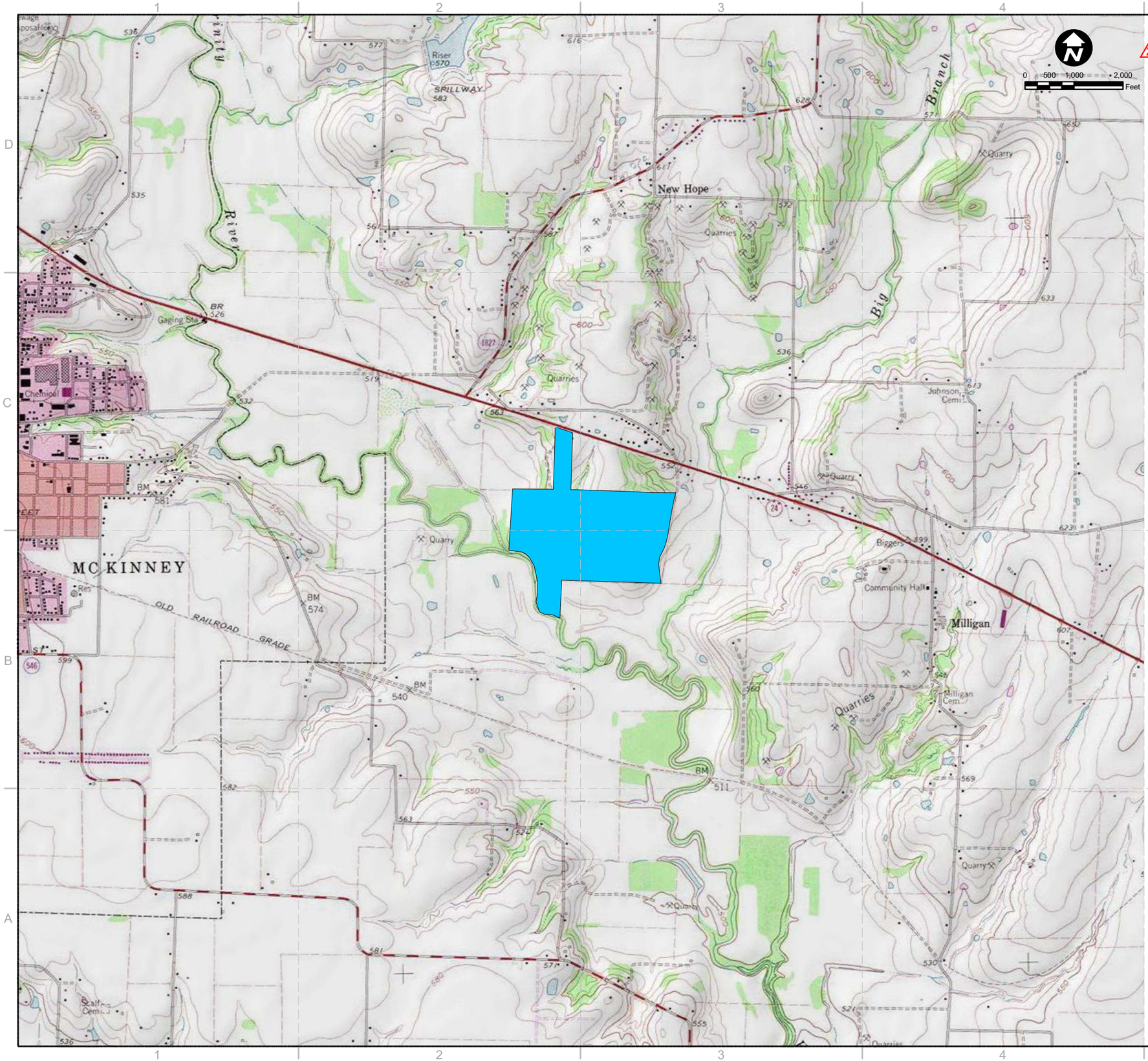
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

TXDOT COUNTY MAP

FIG.I-4.1

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig I-4.1_TXDOT County Map_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 9:41:11 AM USER: afranklin



Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

CLIENT

CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

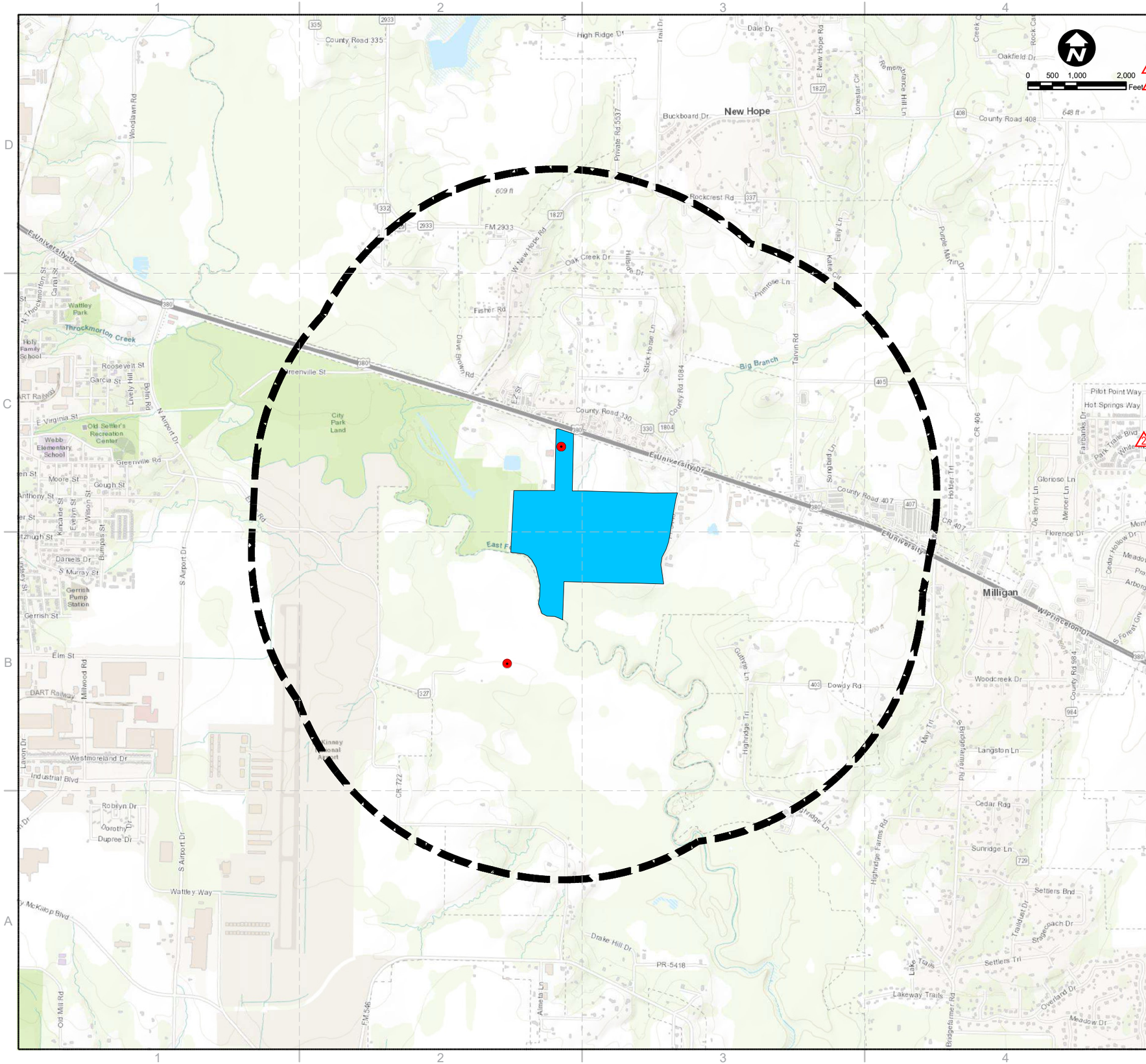
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

GENERAL TOPOGRAPHIC MAP

FIG.I-4.2

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig I-4.2_Gen Topo Map_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 1:50:18 PM USER: afranklin



NOTE:
1. THERE ARE NO KNOWN NATURAL SPRINGS WITHIN 1 MILE OF THE FACILITY.
2. THERE ARE NO KNOWN OIL WELLS WITHIN 1 MILE OF THE FACILITY.
3. THERE ARE NO KNOWN WATER WELLS WITHIN 1 MILE OF THE FACILITY.
4. THERE ARE NO KNOWN BRACKISH WELLS WITHIN 1 MILE OF THE FACILITY.
5. WELL REPORTS 82971, 83428, 83429, 83432, 83435, 83436, 83437, 502353, 500362, 502951, 502592, 502593, AND 502594 FROM THE TEXAS WATER DEVELOPMENT BOARD'S SUBMITTED DRILLER'S REPORT DATABASE REFER TO THE SITE'S GROUNDWATER MONITORING WELLS, AND REPORT NUMBERS 500363, 500364, 500366, AND 500365 REFER TO THE SITE's GAS PROBES AND ARE NOT SHOWN ON THIS FIGURE.

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Well locations obtained from the Texas Water Development Board GIS Data (http://www.twdb.texas.gov/mapping/gisdata.asp). Obtained on July 6, 2021. Well locations updated nightly.

Parkhill

CRWC TPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT
CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

WELLS AND SPRINGS WITHIN ONE MILE

FIG.I-4.3

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig I-4.3_Wells & Springs_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 9:48:29 AM USER: afranklin

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Part II

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-56

Parkhill Project No.: 016048.21

Texas Commission on Environmental Quality
Part II Application Form for New Permit or Permit Amendment for a Municipal Solid Waste Landfill Facility

I. Application Information

1. Facility Name: CRWC Type IV Landfill
2. Permittee Name: Construction Recycling and Waste Corporation
3. MSW Authorization #: 2278A
4. Initial Submittal Date: 09/23/2021

II. Existing Conditions Summary - 30 TAC §330.61(a)

Provide information to address any site-specific conditions that require special design considerations and possible mitigation of conditions as follows.

1. Provide a summary describing the existing conditions at the site and within the areas surrounding the site, which may include discussions of any additional land-use, environmental, or special issues related to the facility.

This landfill is an existing, active Type IV facility located in eastern McKinney in Collin County, Texas. The landfill is authorized under Permit No. 2278 (initially issued in 2003). The total acreage of the landfill and its associated facilities is 146.79 acres, of which approximately 95 acres is the waste footprint. The site was originally a quarry consisting of two large quarry pits covering approximately 42 acres, with depths ranging from 15 to 80 feet. The waste footprint will comprise the two existing quarry pits and the area between them (which will be excavated to the permitted elevations). Some quarry operations are still active. The site is bound to the southwest by the East Fork Trinity River. The waste disposal footprint is not within the 100-year flood plain boundary, and is protected by an embankment. All existing landfill cells were constructed with a 3-foot clay liner (with a maximum permeability of 1x10^-7 cm/s) and 1-foot of protective cover.

2. Provide brief descriptions of all site-specific conditions at the facility that require special design considerations.

The landfill is designed with a groundwater underdrain system to take into account the hydrostatic pressure head due to the seasonal high water table.

The southwest portion of the waste disposal footprint is protected from the 100-year floodplain by an embankment.

3. Indicate that reports of site-specific conditions that require special design considerations and mitigation of such conditions are provided under Sections VIII – XVI below with regard to (a) facility impacts on surrounding areas; (b)transportation; (c) general geology and soils; (d) groundwater and surface water; (e) existing and abandoned oil and water wells; (f) floodplains and wetlands; (g) endangered or threatened species impacts; and (h) compliance with the Texas Natural Resources Code, Chapter 191 (Texas Antiquities Code).

Further discussions of site specific conditions requiring special design consideration and mitigation of such conditions are provided under sections XII (Groundwater and Surface Water) and XIV (Floodplains).

III. Waste Acceptance Plan - 30 TAC §330.61(b)

1. ☐ If this application is for a Type I or Type IAE MSW landfill facility, attach completed Form No. TCEQ-20873. Attachment No.:
2. ☑ If this application is for a Type IV or Type IVAE MSW landfill facility, attach completed Form No. TCEQ-20890. Attachment No.: II-2

IV. General Location Maps - 30 TAC §330.61(c)

Provide General Location Maps that accurately show the features listed below. Provide all General Location Maps in a single attachment and include the drawing number in the space provided. Include notes on each map, as needed, to describe information pertaining to the map.

1. The prevailing wind direction with a wind rose. Figure II-3.5
2. All known water wells within 500 feet of the proposed permit boundary with the state well numbering system designation for Water Development Board "located wells."

None (see Figure II-3.3)

3. All structures and inhabitable buildings within 500 feet of the proposed facility.

Figure II-3.3

4. (i) Schools, (ii) licensed day-care facilities, (iii) churches, (iv) hospitals, (v) cemeteries, (vi) ponds, (vii) lakes, and (viii) residential, (ix) commercial, and (x) recreational areas within one mile of the facility. Figure II-3.4
5. The location and surface type of all roads within one mile of the facility that will normally be used by the owner or operator for entering or leaving the facility. Figure II-3.1
6. Latitudes and longitudes. Figure II-3.1
7. Area streams. Figure II-3.1 and Figure II-3.2
8. Airports within six miles of the facility. Figure II-3.5
9. The property boundary of the facility. Figures II-3.1, II-3.2, II-3.3, II-3.8
10. (i) Drainage, (ii) pipeline, and (iii) utility easements within or adjacent to the facility.

Figure II-3.7

11. (i) Facility access control features. See note on Figure II-3.3
12. (i) Archaeological sites, (ii) historical sites, and (iii) sites with exceptional aesthetic qualities adjacent to the facility. None (See Figure II-3.4)

V. Facility Layout Maps - 30 TAC §330.61(d)

Provide the Facility Layout Map(s) as a single attachment, and include drawing number(s) in the space provided. Include notes on each map, as needed, to describe information on the map.

Provide a map or set of maps of the facility layout showing:

1. The outline of the units; Figure II-4.1
2. General locations of main interior facility roadways; Figure II-4.1
3. Locations of monitor wells; Figure II-4.1
4. Locations of buildings; Figure II-4.1

5. Any other graphic representations or marginal explanatory notes necessary to communicate the proposed construction sequence; Att II-4, Const. & Dev. Notes
6. Fencing; Figure II-4.1
7. Provisions for the maintenance of any natural windbreaks, such as greenbelts, where they will improve the appearance and operation of the facility and, where appropriate, plans for screening the facility from public view; Figure II-4.1
8. All site entrance roads from public access roads; Figure II-4.1
9. General locations of main interior facility roadways that can be used to provide access to fill areas; Figure II-4.1
10. Sectors with appropriate notations to communicate the types of wastes to be disposed of in individual sectors; Figures II-4.2, II-4.3, and II-4.4
11. The general sequence of filling operations; Figures II-4.2, II-4.3, and II-4.4
12. Sequence of excavations and filling; Figures II-4.2, II-4.3, and II-4.4
13. Dimensions of cells or trenches; Figure II-4.1 and
14. Maximum waste elevations and final cover. Figure II-4.6

VI. General Topographic Maps - 30 TAC §330.61(e)

1. Provide general topographic map(s) consisting of United States Geological Survey 7 ½-minute quadrangle sheets or equivalent for the facility.
   Map No(s). Figure II-3.2
2. At least one of the general topographic maps provided is at a scale of one-inch equals 2,000 feet.
   ☑ Yes

VII. Aerial Photograph - 30 TAC §330.61(f)

Provide an aerial photograph approximately 9" x 9" with a scale within a range of one-inch equals 1,667 feet to one-inch equals 3,334 feet and showing the area within at least one-mile radius of the site boundaries. Mark the site boundaries and fill areas on the aerial photograph(s). A series of aerial photographs can be used to show growth trends.
Attachment No.(s): Figure II-3.3

VIII. Land-Use Map - 30 TAC §330.61(g)

Provide a constructed map of the facility showing the following land-use features (list the map number(s) in the space provided):

1. The boundary of the facility; Figure II-3.4
2. Existing zoning on or surrounding the property ; Figure II-3.4
3. Actual uses (e.g., agricultural, industrial, residential, etc.) both within the facility and within one mile of the facility. Figure II-3.4
4. Drainage, pipeline, and utility easements within the facility; Figure II-3.7
5. Access roads serving the facility; Figure II-3.4

6. Check the following facilities if they are within one mile of the facility boundary and indicate on map. Figure II-3.4

   (a) ☑ residences;

   (b) ☑ commercial establishments;

   (c) ☐ schools;

   (d) ☐ licensed day-care facilities;

   (e) ☑ churches;

   (f) ☐ cemeteries;

   (g) ☐ ponds or lakes; and

   (h) ☐ recreational areas.

IX. Impact on Surrounding Area - 30 TAC §330.61(h)

Address the facility's impacts on cities, communities, groups of property owners, or individuals and describe mitigation of conditions as required. Attach additional pages as necessary. If a land use compatibility analysis report prepared by a qualified professional is provided, indicate the location within the application. Attachment No.:

1. **Impacts to Surrounding Areas:**
   (a) Provide information regarding the likely impacts of the facility on cities, communities, groups of property owners, or individuals by analyzing the compatibility of land use, zoning in the vicinity, community growth patterns, and other factors associated with the public interest; and

There are no significant negative impacts anticipated as a result of the proposed permit amendment. The facility has been permitted since 2003 (active since 2019) and the site is shared by a quarry which has been active since before the landfill was permitted. The land use in the area is compatible, and the directional trend of nearby development is not toward the site.

   (b) Describe any special design considerations and possible mitigation of potential impacts, as necessary.

No special design considerations relating to the impact of the facility on the surrounding area are anticipated.

Published Zoning Map: If available, provide a published zoning map for the facility and within two miles of the facility for the county or counties in which the facility is or will be located.

Figure II-3.4

2. **Special or Nonconforming Use Permit:**

   (a) Does the site require approval as a nonconforming use or a special permit from the local government having jurisdiction? ☐ Yes ☑ No

   (b) If yes, provide a copy of such approval. Attachment No.: N/A

3. **Character of Surrounding Land Use:** Describe the character of the surrounding land uses within one mile of the proposed facility.

Land use within 1 mile of the site is mostly agricultural, commecial, or residential. Nearby commercial uses are mostly automotive service, automotive salvage, and metal recycling. The land immediately west of the site is currenly pasture. All but one nearby residence is over 1,500 feet from the waste disposal footprint.

4. **Growth Trends and Directions of Major Development:**

(a) Provide information about growth trends within five miles of the facility.

Most growth in the area is occurring to the west of U.S. Highway 75 (approximately 4 miles west of the site). Growth along the U.S. Highway 380 corridor within 1 mile of the site has been unremarkable since the landfill was permitted. There has been some residential growth in the west portion of the town of Princeton (approximately 1.5 miles east of the site).

(b) Describe the directions of major development.

Most major development is occuring to the west of U.S. Highway 75 (approximately 4 miles west of the site) and not in the direction of the site. Recent residential development in the west half of the town of Princeton has been trending mostly north and south (generally not towards the landfill).

5. **Number of and Proximity to Residences and Other Uses:** Indicate the approximate number and proximity of residences and other uses within one mile of the facility as follows. Population density and proximity to residences and other uses may be considered in the assessment.

(a) Number of, distance, and directions to residences:

Approximately 250 residences within one mile, most are approximately 500 feet north of the entrance.

(i) Indicate the distance to the nearest residences: 200 feet

(ii) Provide directions to the nearest residences:

The nearest residence is north of the northwest corner of the waste footprint.

(b) Number of, distance, and directions to commercial establishments:

Approximately 60 commercial establishments within one mile, mostly located along U.S. 380, north/north east of the site

(i) Indicate the distance to the nearest commercial establishments: 35 feet

(ii) Provide directions to the nearest commercial establishments:

West of the scale house

(c) Number of, distance, and directions to schools:

No schools within 1 mile

(d) Number of, distance, and directions to churches:

2 churches within one mile, nearest is located approximately 2,500 ft east of the site.

(e) Number of, distance, and directions to cemeteries:

1 cemetery, located approximately 1 mile southeast of the site.

(f) Number of, distance, and directions to historic structures and sites:

No known historic sites within 1 mile.

(g) Number of, distance, and directions to archaeologically significant sites:
No known archaeologically significant sites within one mile.

(h) Number of, distance, and directions to sites having exceptional aesthetic quality:
No known sites having exceptional aesthetic quality within one mile.

6. **Known Wells**. Provide information and discussion of all known wells within 500 ft. of the proposed facility. Provide the well information using Table VIII-1 below. If site has more than 5 wells within the radius, include wells information as an attachment.

No known wells within 500 ft. of site.

Table VIII-1. Well Information

Wells Within 500 ft. Radius of the Proposed Facility							
Well Locator	Well ID No.	Depth (ft.)	Completion Date	Completion Formation	Well Use	Longitude	Latitude

X. Transportation and Airport Safety - 30 TAC §330.61(i) and §330.545

1. **Transportation:** Attach completed Transportation Data and Coordination Report Form for Municipal Solid Waste Type I Landfills, TCEQ-20719. Attachment No.: N/A

2. **Airport Safety:**

(a) Is the facility located, or will be located, within 10,000 feet of any airport runway end used by turbojet aircraft? ☑ Yes ☐ No

(b) Is the facility located, or will be located, within 5,000 feet of any airport runway end used by only piston-type aircraft? ☐ Yes ☑ No

(i) If the answer is "Yes" to either (a) or (b) above, indicate the distance of the facility from the nearest airport runway end used by only turbojet aircraft: 4,300 feet or piston-type aircraft: feet; and

(ii) Provide required demonstration to show that the municipal solid waste facility units are or will be designed and operated so as not to pose a bird hazard to aircraft.
Refer to Attachment II-6, Section 1.4: Impact of Facility on Airports

(c) Is the facility located, or will be located, within a six-mile radius of any small general service airport runway end used by turbojet or piston-type aircraft? ☑ Yes ☐ No

(d) Is the facility located, or will be located, within a five-mile radius of any large general public airport runway end used by turbojet or piston-type aircraft? ☐ Yes ☑ No

(i) If the answer to either of subsection (c) or (d) above is "Yes," has the applicant notified the affected airport as required?
☐ Yes ☑ No. Explain: Notification not required, Refer to Att II-6, Sec. 1.4

(ii) Also, has the applicant notified the Federal Aviation Administration as required?
☐ Yes ☑ No. Explain: Notification not required, Refer to Att II-6, Sec. 1.4

(iii) Provide copies of the notifications to the affected airport and to FAA.
Refer to Attachment II-6.

(iv) All landfill facilities within a six-mile radius of any small general service airport runway or within a five-mile radius of any large general public commercial airport runway shall be critically evaluated to determine if an incompatibility exists. Include any coordination received from the affected airport and from the FAA concerning compatibility.
Refer to Attachment II-6.

(e) Will the subject landfill accept waste streams that include putrescible waste?
☐ Yes ☑ No.

(i) If the answer to subsection (e) is "Yes," address the potential for the facility to attract birds and cause significant hazards to low-flying aircraft. Guidelines regarding location of landfills near airports can be found in Federal Aviation Administration Order 5200.5(A), January 31, 1990 (or the replacement active orders, notices, and advisory circular guidelines from the FAA can be used).

XI. General Geology and Soils Statement and Location Restrictions - 30 TAC §330.61(j) and §§ 330.555 - 330.559

1. Discuss in general terms the geology and soils of the proposed site.

The site lies in the Black Prairie regional physiographic province. The uppermost rock formation underlying the soil layer is the Austin Chalk Formation of the Cretaceous Period. The upper parts of the Austin Chalk has been subjected to intense mechanical and chemical hydrologic weathering and forms the subsoil in the upland and lowland areas at this site.

2. Fault Areas

(a) Will the municipal solid waste landfill units at the facility or a lateral expansion of the facility be located within 200 feet of a fault that has had displacement in Holocene time?
☐Yes ☑No
If the answer is "Yes," provide demonstration to show that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the landfill unit and will be protective of human health and the environment. Attachment No.: ~~N~~III-9, Plate 8A

(b) Is the facility located within areas that may be subject to differential subsidence or active geological faulting? ☐Yes ☑No
If the answer is "Yes," provide a detailed fault study. Attachment No.: N/A

(c) Is an active fault known to exist within 1/2 mile of the site? ☐Yes ☑No
If the answer is "Yes," investigate the site for unknown faults and discuss its results.
Attachment No.: N/A

(d) Is the facility located in areas experiencing withdrawal of crude oil, natural gas, sulfur, etc., or significant amounts of groundwater? ☐Yes ☑No
If the answer is "Yes," investigate the site in detail for the possibility of differential subsidence or faulting that could adversely affect the integrity of landfill liners and discuss the site investigation and its results. Attachment No.: N/A

(e) If conducted, were the studies of differential subsidence or faulting conducted under the direct supervision of a licensed professional engineer experienced in geotechnical engineering or a licensed professional geoscientist qualified to evaluate conditions of differential subsidence or faulting? ☐Yes ☐No. Explain
N/A

(f) If conducted, do the studies of differential subsidence or faulting establish the limits (both upthrown and downthrown) of the zones of influence of all active faulted areas within the site vicinity? ☐Yes ☐No. Explain N/A

(g) If conducted, do the studies of differential subsidence include information or data addressing the following shown below, as applicable:

Table X-1. Information included in Fault Area Studies

Information to be included, as applicable:	Yes	Not Applicable
(i) structural damage to constructed facilities (roadways, railways, and buildings);	☐	☑
(ii) scarps in natural ground;	☐	☑
(iii) presence of surface depressions (sag ponds and ponded water);	☐	☑
(iv) lineation's noted on aerial maps and topographic sheets;	☐	☑
(v) structural control of natural streams;	☐	☑
(vi) vegetation changes;	☐	☑
(vii) crude oil and natural gas accumulations;	☐	☑
(viii) electrical spontaneous potential and resistivity logs (correlation of subsurface strata to check for stratigraphic offsets);	☐	☑
(ix) earth electrical resistivity surveys (indications of anomalies that may represent fault planes);	☐	☑
(x) open cell excavations (visual examinations to detect changes in subsoil texturing and/or weathering indicating stratigraphic offsets);	☐	☑
(xi) changes in elevations of established benchmarks; and	☐	☑
(xii) references to published geological literature pertaining to area conditions.	☐	☑

(h) If the site is or will be located within a zone of influence of active geological faulting or differential subsidence, does the application provide substantial evidence that the zone of influence will not affect the site?
☐Yes ☐No Attachment No.: N/A

Address the following statement:

3. ☑ No solid waste disposal shall be accomplished within a zone of influence of active geological faulting or differential subsidence because active faulting results in slippage along failure planes, thus creating preferred seepage paths for liquids.

4. Seismic Impact Zones

(a) Is the proposed facility located in a seismic impact zone, as defined in 30 TAC §330.557?
☐Yes ☑No
Provide information to support response. Attachment No.: II-7, Section 1.2

(b) For facilities located in a seismic impact zone, provide a detailed demonstration showing that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site. Attachment No.: N/A

5. Unstable Areas

(a) Is the facility located in an unstable area, as defined in 30 TAC §330.559?
☐Yes ☑No Explain: Refer to Attachment II-7, Section 1.3: Unstable Areas

(b) If the facility is located in an unstable area, provide a demonstration that engineering measures have been incorporated into the landfill unit's design to ensure that the integrity of the structural components of the landfill unit will not be disrupted.
Attachment No.: N/A
The demonstration considered at least the following factors:

(i) on-site or local soil conditions that may result in significant differential settling;
☐Yes ☐No

(ii) on-site or local geologic or geomorphologic features; ☐Yes ☐No and

(iii) on-site or local human-made features or events (both surface and subsurface).
☐Yes ☐No

XII. Groundwater and Surface Water - 30 TAC §330.61(k) and §330.549

1. Groundwater

Provide an attachment containing data about the site-specific groundwater conditions at and near the site, from published and open-file sources, including:

- Aquifer names and their association with geologic units described in the General Geology and Soils Statement;
- Groundwater quality, including, if available, typical values or value ranges for total dissolved solids content; and
- Present use(s) of groundwater withdrawn from aquifers at and near the site, if available.

Attachment No.: III-9 & III-10

Address the following as applicable:

(a) Is the facility located over the Edwards Aquifer recharge zone, as defined in 30 TAC §330.549? ☐Yes ☑No.
If yes, discuss how the facility will comply with the applicable requirements in 30 TAC Chapter 213 (relating to Edwards Aquifer).

N/A

(b) A Type I or Type IAE landfill is prohibited on the recharge zone of the Edwards Aquifer; the applicant will not locate a Type I or Type IAE landfill on the recharge zone of the Edwards Aquifer. Select either statement that applies:

☑ (i) The facility is not or will not be located over the Edwards Aquifer Recharge Zone.

☑ (ii) The facility is not a Type I or Type IAE landfill.

(c) A new landfill cell or an aerial expansion of an existing landfill cell managing Class 1 non-hazardous industrial solid waste may not be located in areas described in 30 TAC § 335.584(b)(1) and (2) (relating to Location Restrictions), unless the Executive Director (ED) approves an engineered design that the applicant has demonstrated will provide equal or greater protection to human health and the environment:

(i) Does the application propose Class 1 nonhazardous industrial solid waste cells or units at the subject facility? ☐Yes ☑No

(ii) If yes, discuss how the facility would comply with the location restriction requirements under 30 TAC §335.584(b)(1) and (2). Include any applicable equivalency demonstration that would provide equivalent or greater protection to human health and the environment. Attachment No.: N/A

2. Surface Water

(a) Provide data on surface water at and near the site (including lakes, ponds, creeks, streams, rivers, or similar water bodies).
Attachment Nos.: Attachment II-8, Section 1.2

(b) Provide information demonstrating how the municipal solid waste facility will comply with applicable Texas Pollutant Discharge Elimination System (TPDES) storm water permitting requirements and the Clean Water Act, §402, as amended

(i) The facility has obtained TPDES permit coverage under the following individual wastewater permit(s) (list permit number(s)): TXR05EJ23 . A copy of the permit(s) is provided in Attachment No.: II-8 , or

(ii) A certification statement indicating that the applicant will obtain the appropriate TPDES permit coverage when required.
☐Yes ☐No. Explain

XIII. Abandoned Oil and Water Wells - 30 TAC §330.61(l)

1. Water Wells

(a) Are there any existing or abandoned water wells within the facility? ☐Yes ☑No

(i) If no, move to Item No. 2 below.

(ii) If yes, address the following:

(1) Provide a map showing the water well locations, identity, status, and use. Attachment No.:

(2) Will all the water wells be capped, plugged, and closed prior to construction at the facility? ☐Yes ☐No.

(3) If yes, provide written certification that all such wells will be capped, plugged, and closed in accordance with all applicable rules and regulations of TCEQ or other state agency within 30 days prior to construction at the facility. Attachment No.:

(4) If no, identify and describe the water wells that will be capped, plugged, and closed in accordance with all applicable rules and regulations of TCEQ or other state agency. Attachment No.:

(5) Also, identify the wells necessary for use, and that will remain in use, for supply for operations at the facility. Attachment No.:

(6) Are the water wells that will remain in use for supply for operations at the facility located outside of the groundwater monitoring well network and not subject to impact from landfill operations? ☐Yes ☐No. If no, explain

(7) The water wells that will remain in use for supply for operations at the facility and that are located inside of the groundwater monitoring network, but outside the landfill unit boundary, are identified in Attachment No.: for ED approval.

2. Oil and Gas Wells

(a) Are there any existing or abandoned on-site crude oil, natural gas, or other wells associated with mineral recovery under the jurisdiction of the Railroad Commission of Texas?
☐Yes ☑No

(i) If yes, address the following items:

(1) Provide a map showing well locations, identity, type, and status.
Attachment No.:

(2) Identify and annotate the oil or natural gas wells that are producing and will remain in their current state, provided such wells do not affect or hamper landfill operations.

(3) Provide written certification that all the oil and natural gas wells, other than the producing wells approved for retention, have been properly capped, plugged, and closed at the time of application in accordance with all applicable rules and regulations of the Railroad Commission of Texas.
Attachment No.:

XIV. Floodplains - 30 TAC §330.61(m)(1) and §330.547

1. Describe the location of the facility with respect to floodplains.

The effective FIRM indicates that a small portion within the southwest permit boundary is within the 100-year FEMA regulated floodplain. The facility recieved approval from FEMA under a CLOMR for construction of an embankment to remove the waste footprint from the floodplain. The facility received approval for development within the floodplain from the City of McKinney. The embankment has been constructed, and the area indicated on the FIRM is no longer in the floodplain. A LOMA is being submitted to FEMA to revise the FIRM floodplain delineation.

2. Provide a copy of the Federal Emergency Management Administration (FEMA) flood map for the area to show the facility boundary and to illustrate the information described in Section 1 above. Attachment No.: II-9

3. For construction of levees or other improvements associated with flood control on the proposed facility, provide data on floodplains in accordance with 30 TAC Chapter 301 Subchapter C (relating to Approval of Levees and Other Improvements). N/A

4. Address the following requirements with regard to the location of the facility:

(a) Provisions to ensure that no solid waste disposal operation is conducted within the facility in areas that are located in a 100-year floodway as defined by FEMA. The waste footprint is outside the floodway

(b) Designs that demonstrate that municipal solid waste management units, including storage and processing facilities, located in 100-year floodplains will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.

The waste footprint is outside the 100-year floodplain.

(c) Demonstrate MSW storage and processing facilities shall be located outside of the 100-year floodplain unless the owner or operator demonstrates that the facility is designed and will operate to prevent washout during a 100-year storm event, or obtains a conditional letter of map amendment from FEMA. CLOMR approval letter provided in Attachment II-9.

(d) If applicable, provide a copy of the conditional letter of map amendment (or other applicable FEMA approval) from the FEMA administrator for development within a floodplain.
CLOMR approval letter provided in Attachment II-9

(e) References to provisions, designs, and narratives regarding floodplains in Part III of the application. See Attachments III-2 and III-6.

XV. Wetlands - 30 TAC §330.61(m)(2) and §330.553

1. Provide a wetlands determination under applicable federal, state, and local laws and discuss wetlands in accordance with 30 TAC §330.553. Demonstration can be made by providing evidence that the facility has a Corps of Engineers permit for the use of any wetlands area. Attachment No.: II-10

   (a) If applicable, provide a copy of any Corps of Engineers permit issued to the applicant for the use of any wetlands area within the facility. Attachment No.: N/A

2. Identify wetlands located within the facility boundary, attach necessary maps and drawings.
Attachment II-10, Figures 5 & 6.

3. Where new municipal solid waste landfill units, lateral expansions, material recovery operations from a landfill, and storage or processing units are to be located in wetlands, discuss the identified wetlands considering the following:

   (a) Locating the landfill units, lateral expansions, material recovery operation from a landfill, and storage or processing units away from the identified wetlands. N/A

   (b) Steps taken to avoid impacts to wetlands to the maximum extent practicable to achieve no net loss of wetlands (as defined by acreage and function).

N/A

   (c) For unavoidable impacts:

      (i) Clearly rebut the presumption that a practicable alternative to the proposed facility or recovery operation is available that does not involve wetlands.

N/A

      (ii) Demonstrate that the construction and operation of the municipal solid waste landfill unit, material recovery operation from a landfill, and storage or processing units will not:

      (1) cause or contribute to violations of any applicable state water quality standard;

N/A

      (2) violate any applicable toxic effluent standard or prohibition under the Clean Water

N/A

      (3) jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; or

N/A

      (4) violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary.

N/A

(iii) Demonstrate the integrity of the landfill unit and its ability to protect ecological resources by addressing the following factors showing that the municipal solid waste landfill unit or recovery operation will not cause or contribute to significant degradation of wetlands: N/A

(1) erosion, stability, and migration potential of native wetland soils, muds, and deposits used to support the landfill unit; N/A

(2) erosion, stability, and migration potential of dredged and fill materials used to support the landfill unit; N/A

(3) the volume and chemical nature of the waste managed in the landfill unit; N/A

(4) impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste; N/A

(5) the potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and N/A

(6) any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected. N/A

(iv) Demonstrate steps taken to minimize unavoidable impacts to wetlands to the maximum extent practicable. N/A

(v) Demonstrate offsetting of remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands). N/A

XVI. Endangered or Threatened Species - 30 TAC §330.61(n) and §330.551

1. Provide Endangered Species Act compliance demonstrations as required under applicable state and federal laws. Attachment No.: II-11

2. Determine and discuss whether the facility is in the range of endangered or threatened species.

Refer to Attachment II-11.

3. If the facility is located in the range of endangered or threatened species, provide a biological assessment prepared by a qualified biologist in accordance with standard procedures of the United States Fish and Wildlife Service (USFW) and the Texas Parks and Wildlife Department (TPWD) to determine the effect of the facility on the endangered or threatened species. Where a previous biological assessment has been made for another project in the general vicinity, a copy of that assessment may be submitted for evaluation. Attachment No.: See Att II-11

4. Provide coordination correspondence with and responses from the USFW and the TPWD concerning locations and specific data relating to endangered and threatened species in Texas.

Refer to Attachment II-11.

5. Describe how the facility will comply with recommendations from the TPWD and USFW regarding protection of endangered and threatened species.

No recommendations provided by TPWD or USFW. Refer to Appendix II-11.

6. Discuss the impact of the solid waste disposal facility upon endangered or threatened species:

Refer to Attachment II-11, Section 1.

7. Describe how the facility design, construction, and operation will not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

Refer to Attachment II-11, Section 1.

XVII. Texas Historical Commission Review 30 TAC §330.61(o)

1. Provide correspondence to and a review letter from the Texas Historical Commission documenting compliance with the Natural Resources Code, Chapter 191, Texas Antiquities Code.
   Attachment No.: II-12

XVIII. Council of Governments 30 TAC §330.61(p)

1. Provide documentation that Parts I and II of the application were submitted to the applicable council of governments for compliance with regional solid waste plans. Also provide a review letter if received from the applicable council of governments.
   Attachment No.: II-13
2. Provide documentation that a review letter was requested from any local governments as appropriate for compliance with local solid waste plans.
   Attachment No.: II-13

XIX. Easement Protections 30 TAC §330.543(a)

1. Will the applicant design and operate the facility such that no solid waste unloading, storage, disposal, or processing operations will occur within any easement, buffer zone, or right-of-way that crosses the facility? ☑Yes
2. Will the applicant design and operate the facility such that no solid waste disposal shall occur within 25 feet of the center line of any utility line or pipeline easement but no closer than the easement? ☑Yes
3. Will the applicant clearly mark all pipeline and utility easements with posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet?
   ☑Yes

XX. Buffer Zones 30 TAC §330.543(b)

1. Provide the buffer zone distance (i.e. 50 feet for Arid Exempt and Type IV landfills, 125 feet for Type I landfills) at the facility to demonstrate compliance with 30 TAC §330.543(b).

A minimum buffer of 50 feet is provided in accordance with §330.543(b).

2. Provide references for the application drawings and maps that clearly show the buffer zones around the facility. Attachment(s) No.: II-4, Figure II-4.2

XXI. Coastal Areas 30 TAC §330.561

1. A new landfill cell or an aerial expansion of an existing landfill cell managing Class 1 industrial solid waste (other than waste which is Class 1 because of asbestos content) may not be located in areas:

   (a) On a barrier island or peninsula.

   (b) Within 1,000 feet of an area subject to active coastal shoreline erosion, if the area is protected by a barrier island or peninsula, except as allowed under 30 TAC §335.584(b)(4).

   (c) Within 5,000 feet of coastal shorelines that are subject to active shoreline erosion and which are unprotected by a barrier island or peninsula, except as allowed under 30 TAC §335.584(b)(4).

2. Describe the location of the facility with regard to distance to coastal shoreline subject to active shoreline erosion.

The landfill does not accept Class I industrial soild waste, and is not on a barrier island, on a peninsula, or within 5,000 feet of a coastal shoreline.

XXII. Type I and Type IV Landfill Permit Issuance Prohibited – 30 TAC §330.563

Address the following statements.

1. The commission may not issue a permit for a Type IV landfill that is subject to the conditions specified in Texas Health and Safety Code, §361.122, Denial of Certain Landfill Permits. Is the proposed facility a Type IV landfill located in the area subject to the referenced statute?
   ☐Yes ☑No Explain Does not meet any condition of §361.122

2. The commission may not issue a permit for a Type I or Type IV landfill that is subject to the conditions specified in Texas Health and Safety Code, §361.123, Limitation on Locations of Municipal Solid Waste Landfills. Is the proposed facility a Type I or Type IV landfill located in the area subject to the referenced statute?
   ☐Yes ☑No Explain Facility not located adjacent to Harris County.

Attachments

Table Att-1. Required Attachments

Attachments	Attachment No.
Existing Conditions Summary	II-1
Waste Acceptance Plan Form	II-2
General Location Maps	II-3
Facility Layout Maps	II-4
General Topographic Maps	II-3
Aerial Photographs	II-3
Land Use Map	II-3
Transportation and Airport Safety Form	N/A
Federal Aviation Administration Coordination Letters, if applicable	II-6
Entity Exercising Maintenance Resp. of Public Roadway, if applicable	N/A
Fault Lines, if applicable	II-7, III-9
Seismic Impact Zones, if applicable	II-7, III-9
Unstable areas, if applicable	II-7, III-9
Site Specific Groundwater Conditions	II-8
Site Specific Surface Water Conditions	II-8
Texas Pollutant Discharge Elimination System (TPDES)	II-8
Abandoned Oil and Water Wells, if applicable	N/A
FEMA Map	II-9
Facility Design Demonstration for Flood Map, or Conditional Letter of Map Amendment from FEMA, if applicable	II-9
Wetland Documentation, if applicable	II-10
Endangered or Threatened Species Documents, if applicable	II-11
Texas Historical Commission Letter(s)	II-12
Council of Governments/Local Governments Review Request Coordination Letter(s)	II-13
Buffer Zones	II-4
Others (describe):	
Others (describe):	
Others (describe):	
Confidential Documents, if applicable	

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-2 – Waste Acceptance Plan

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment II-2 – Waste Acceptance Plan

TABLE OF CONTENTS

Texas Commission on Environmental Quality
Waste Acceptance Plan Form
Type IV & Type IV AE Landfill Facilities

This form is designed to address the requirements for Waste Acceptance Plans in Part II of an application, as required by Title 30 Texas Administrative Code, Chapter 330, §330.61(b)(1). Rules are from Chapter 330 unless otherwise specified. If more space is needed for a line item or table item, include the information on a separate sheet and reference the line or table item. If you have any questions, contact the Municipal Solid Waste Permits Section at mswper@tceq.texas.gov or at (512) 239-2335.

A. Applicant Information

1. Facility Name: CRWC Type IV Landfill
2. MSW Permit No.: 2278A

B. Waste Generation Areas and Population Estimates [§330.61(b)(1)(A)]

Table 1. Areas contributing waste to the facility and estimate of population or population equivalent served by the facility. Values are estimates, not permit limits.

Waste Generation Area	Estimate of Population or Population Equivalent Served in each Area
Grayson County	136,052
Denton County	904,005
Collin County	1,047,901
Hunt County	98,685
Dallas County	2,647,627
Rockwall County	105,969

Estimated population or population equivalent served by the facility.

4,940,239

C. General Sources and Types of Waste to be Accepted at the Facility [§330.61(b)(1) and (1)(A)]

1. General sources of waste to be received (household, commercial, industrial, etc.).

Waste may be accepted from residential, commercial, municipal and/or industrial sources. The Landfill will accept only waste types allowed for a Type IV MSW Landfill facility as defined under 30 TAC §330.5(a)(2) and as authorized by this permit.

2. Types of Waste to be Accepted for **Disposal** at the Facility

   a. Indicate whether the following wastes will be accepted for **disposal** (check "Yes" for will accept or "No" for will not accept).

i.	☑ Yes ☐ No	Construction or demolition waste [30 TAC §330.3(33)]
ii.	☑ Yes ☐ No	Brush [30 TAC §330.3(18)]
iii.	☑ Yes ☐ No	Rubbish [30 TAC §330.3(136)]
iv.	☐ Yes ☑ No	Tires that have been processed (such as by splitting, shredding, quartering or sidewall removal) in a manner acceptable to the executive director. [30 TAC §330.3(136); 30 TAC §330.15(e)(4) prohibits whole tire disposal]
v.	☐ Yes ☑ No	Class 2 industrial solid waste that is construction or demolition waste, brush, or rubbish. [30 TAC §330.3(22) and 30 TAC §330.173(i)]
vi.	☑ Yes ☐ No	Class 3 industrial solid waste. [30 TAC §330.3(23) and 30 TAC §330.173(j)]

   b. Indicate whether the following Special Wastes will be accepted for disposal.

i.	☐ Yes ☑ No	Pesticide (insecticide, herbicide, fungicide, or rodenticide) containers that have been triple-rinsed before receipt at the landfill, are rendered unusable before receipt or on arrival, and are covered by the end of the same working day they are received. [30 TAC §330.171(c)(5)]
ii.	☐ Yes ☑ No	Non-regulated asbestos-containing material (non-RACM). [40 CFR 261, 30 TAC §330.171(c)(4) and 30 TAC §330.3(95)]
iii.	☐ Yes ☑ No	Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas that is construction or demolition waste, brush, or rubbish. [30 TAC §330.171(b), 30 TAC §330.3(154)(P)]
iv.	☐ Yes ☑ No	Other special waste that is construction or demolition waste, brush, or rubbish. [30 TAC §330.3(154)]
v.	☐ Yes ☑ No	Industrial waste or waste from oil, gas, and geothermal activities that were generated outside the boundaries of Texas that is construction or demolition waste, brush, or rubbish. [30 TAC §330.171(b), 30 TAC §330.3(154)(Q)]

   vi. Specify any wastes to be accepted for disposal that are not listed above.

   None

D. Waste Prohibited from Disposal [§330.61(b)(1)]

The following wastes are prohibited from **disposal**.

- Wastes that are not construction or demolition waste, brush, or rubbish. [30 TAC §330.5(a)(2)]
- Putrescible waste. [30 TAC §330.3(122)]

- Untreated medical waste. Please note that this prohibition may be superseded by the executive director in writing when a situation exists that requires disposal of untreated medical waste to protect human health and the environment from the effects of a natural or man-made disaster. [30 TAC §330.171(c)(1)]
- Lead-acid storage batteries. [30 TAC §330.15(e)(1)]
- Do-it-yourself used motor vehicle oil. [30 TAC §330.15(e)(2)]
- Used oil filters from internal combustion engines. [30 TAC §330.15(e)(3)]
- Whole used or scrap tires. [30 TAC §330.15(e)(4)]
- Items containing chlorinated fluorocarbon (CFC) that have not been handled in accordance with 40 CFR §82.156(f). [30 TAC §330.15(e)(5)]
- Waste material that contains free liquids by the Paint Filter Test, EPA Method 9095. [30 TAC §330.15(e)(6)]
- Regulated hazardous waste. [30 TAC §330.15(e)(7), 40 CFR §261.3]
- Waste that exhibits the characteristics for hazardous waste [40 CFR §261.3] from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas. [30 TAC §330.15(e)(7)]
- Polychlorinated biphenyl wastes (PCBs). [30 TAC §330.15(e)(8), 40 CFR §761]
- Radioactive materials [30 TAC Chapter 336], except as authorized in Chapter 336 or that are subject to an exemption of the Department of State Health Services. [30 TAC §330.15(e)(9)]
- All wastes not authorized for disposal above, including those for which "No" has been indicated.

Specify any wastes to be prohibited for disposal that are not listed above.

None

E. Material Recovery [§330.61(b)(1)(A)]

Will the facility recover materials from incoming waste? ☑ Yes ☐ No

If yes, provide a descriptive narrative describing the percentage of incoming waste, if applicable, that must be recovered and its intended use.

CRWC Type IV Landfill will voluntarily recover materials from incoming waste. There is no minimum percentage that must be recovered.

F. Estimated Maximum Annual Waste Acceptance Rate Projected for Five Years [§330.61(b)(1)(C)]

Provide **estimated** maximum annual waste acceptance rates at the facility, projected for five years. These rates are not permit limitations.

Table 1. Five-Year Projection for Waste Acceptance.

Year	Estimated Maximum Annual Waste Acceptance Rate
2021	360,576
2022	366,537
2023	372,595
2024	378,753
2025	385,014

G. Storage and Processing Units [§330.61(b)(1)]

Indicate units that will store or process waste at the facility. Describe the wastes that will be stored or processed in these units. Provide the final disposition or use (e.g., landfill disposal, composting) of the processed materials. **Waste storage and processing authorized separately (such as a registered transfer station within the permit boundary of a landfill) should not be included on this form.**

Storage and processing units must be illustrated (or locations described) on site layout figures in Part II of the application.

Examples:

1. Unit: liquid stabilization unit, Purpose: process, Waste Type: liquid waste, Disposition: solidified material to be disposed in a properly authorized landfill; or
2. Unit: grease separation and dewatering unit, Purpose: process, Disposition: water to WWTP and grease to composter or Type I landfill.

Table 3. Waste storage and processing units

Unit	Purpose	Waste Type Stored or Processed	Final Disposition or Use
Wood Mulching	☑ Store ☑ Process	Brush/Yard Trimming/Clean Wood	Mulch
C&D Recycling	☑ Store ☑ Process	C&D (Metal/Bricks/Concrete/glass/ etc)	Recycling
	☐ Store ☐ Process		
	☐ Store ☐ Process		
	☐ Store ☐ Process		
	☐ Store ☐ Process		
	☐ Store ☐ Process		
	☐ Store ☐ Process		

H. Prohibited from Processing [§330.61(b)(1)]

The following wastes are prohibited from **processing**.

- Any wastes not authorized for processing above.
- Lead-acid storage batteries may not be incinerated. [30 TAC §330.15(e)(1)]
- Used motor vehicle oil may not be incinerated. [30 TAC §330.15(e)(2)]
- Regulated hazardous waste. [40 CFR §261.3]
- Radioactive materials [30 TAC Chapter 336], except as authorized in Chapter 336 or that are subject to an exemption of the Department of State Health Services. [30 TAC §330.15(e)(9)]
- All wastes not authorized for processing above, including those for which "No" has been indicated.

Specify any other wastes to be prohibited for storage or processing (specify):

None

I. Special Waste Acceptance Plan [30 TAC §330.171(b)(2)]

☐ Yes ☑ No Does this application include a Special Waste Acceptance Plan? If so, please specify its location in the application. N/A

J. Limiting Parameters [30 TAC §330.61(b)(1)]

Municipal construction or demolition waste, brush, and rubbish are categorical. Constituent sampling is not required for these wastes and there are no associated limiting parameters for waste disposal or processing. [30 TAC §330.5(a)(2)]

1. Type IV and IV AE Landfill Limitations

   MSW Type IV and IV AE landfills may not accept wastes that are not construction or demolition waste, brush, or rubbish. [30 TAC §330.3(33), 30 TAC §330.3(18) and 30 TAC §330.3(136)] The presence of waste not fitting these categories, including but not limited to putrescible waste, is a limiting parameter for waste disposal. [30 TAC §330.5(a)(2)]

2. Regulated Hazardous Waste

   MSW landfills may not accept regulated hazardous waste [§330.3(133)] for processing or disposal. The presence or characteristic of any material meeting the definition of a regulated hazardous waste is a limiting parameter for waste disposal or processing.

3. Free Liquids

   The presence of free liquids, as defined by the Paint Filter Test, EPA Method 9095, in waste, but not household waste and not liquid in containers similar in size to those found in household waste, is a limiting parameter for waste disposal. [§330.15(e)(6), §330.3(83)]

4. PCBs

   The presence of polychlorinated biphenyls (PCB) wastes [40 CFR Part 761] unless authorized by the United States Environmental Protection Agency is a limiting parameter for waste disposal or processing. [§330.15(e)(8)]

5. Radioactive Materials

   The presence of radioactive materials [Chapter 336], except as authorized in Chapter 336 or that are subject to an exemption of the Department of State Health Services, is a limiting parameter for waste disposal or processing. [§330.15(e)(9)]

6. Class 1 Solid Waste

   For all Type IV and Type IV AE landfills, 1,500 mg/kg total petroleum hydrocarbons (TPH) and the concentrations in 30 TAC §335.521(a)(1) are limiting parameters for waste disposal.

7. Other Limitations:

   N/A

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-3 – General Location Maps

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

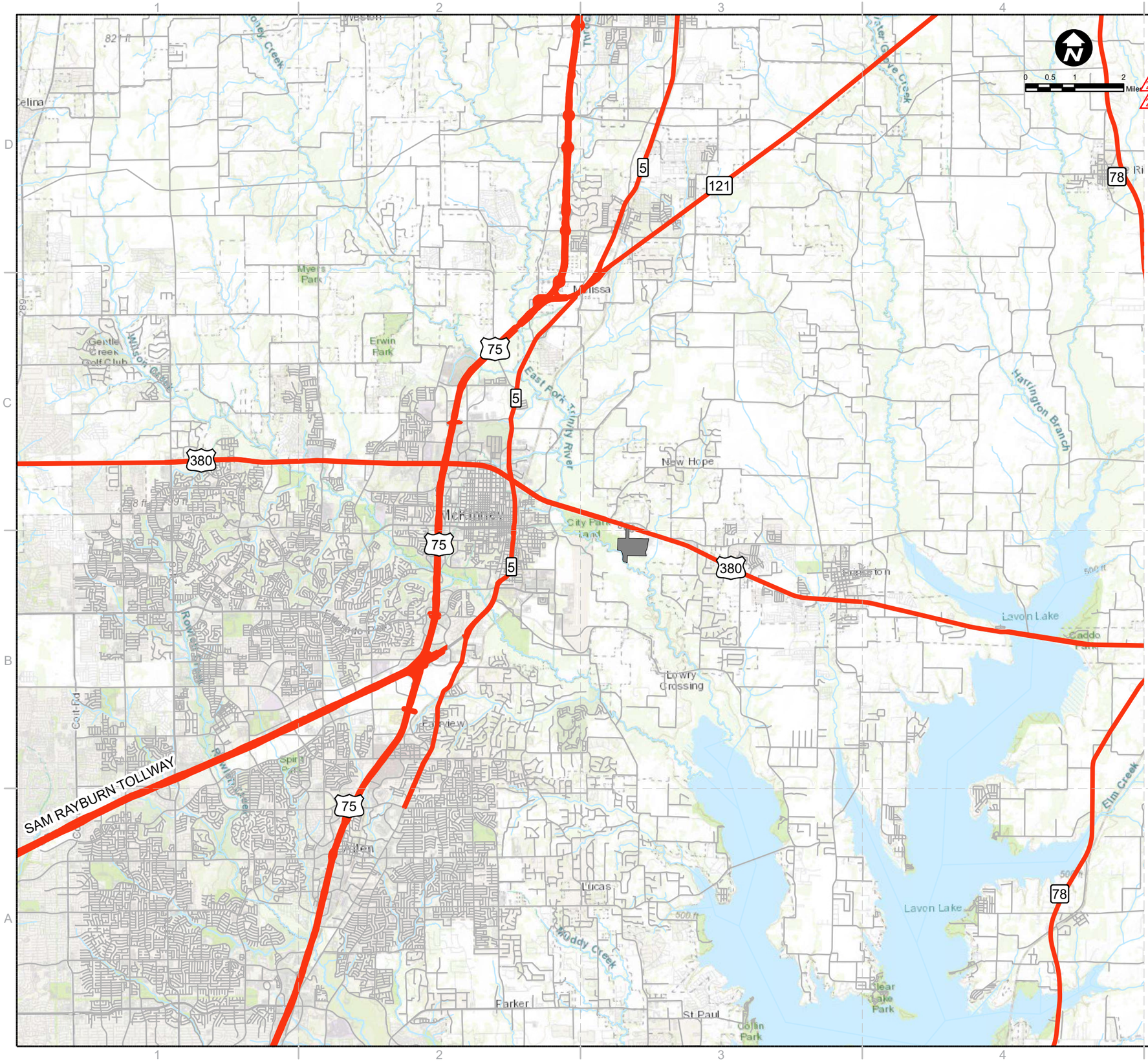
Parkhill Project No.: 016048.21

Attachment II-3 – General Location Maps

TABLE OF CONTENTS

Ordinance No. 2002-05-046 (Zoning Permitted Use Ordinance)

FIGURES



NOTE:
1. THE PRIMARY ACCESS ROAD TO THE FACILITY IS U.S. HIGHWAY 380, A CONCRETE PAVED ROAD SURFACE.
2. COORDINATES OF THE FACILITY ENTRANCE ARE:
Latitude - N 33°, 11', 49"
Longitude - W 96°, 34', 18"

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Texas roadway data obtained from TxDOT GIS database from the TxDOT Roadway Inventory layer updated 3/4/2021.

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT
CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

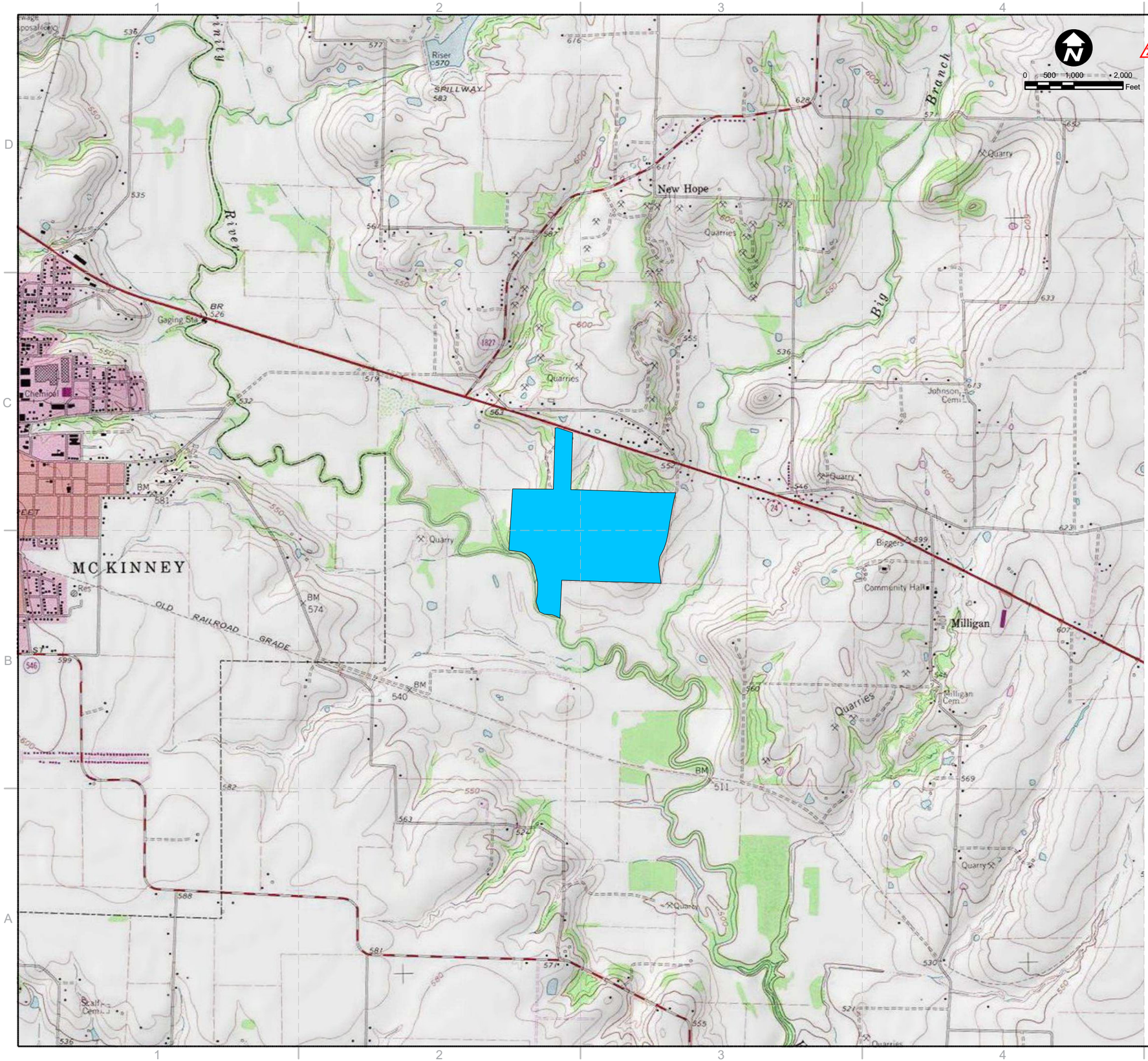
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

GENERAL LOCATION MAP

FIG.II-3.1

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig II-3.1_Gen Loc Map_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 10:13:12 AM USER: afranklin



Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

CLIENT

CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

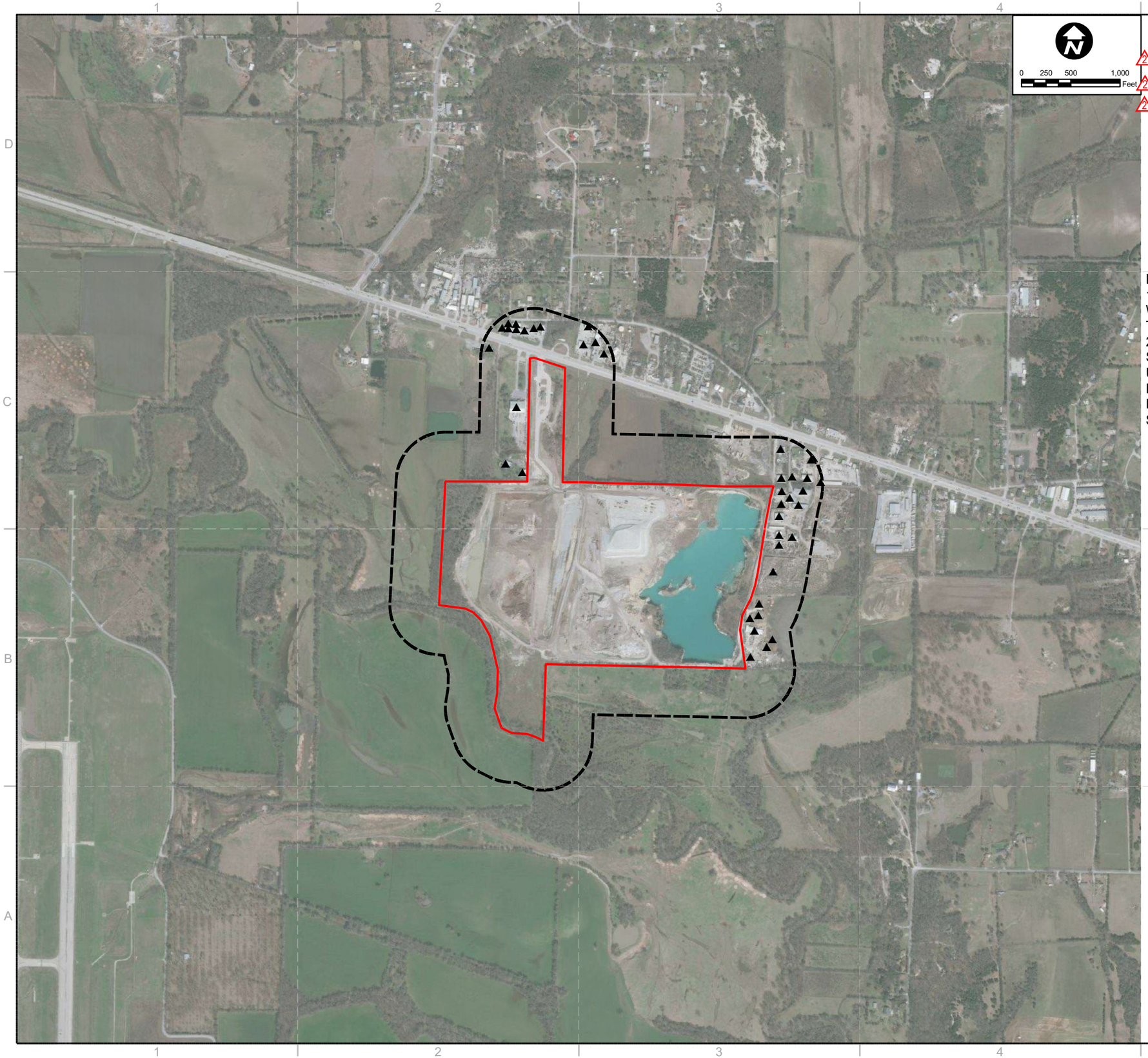
Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

GENERAL TOPOGRAPHIC MAP

FIG.II-3.2

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig II-3.2_Gen Topo Map_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 10:16:42 AM USER: afranklin



LEGEND:

- STRUCTURES & INHABITABLE BUILDINGS
- 500 FOOT BOUNDARY
- PROPERTY BOUNDARY

NOTE:
1. THERE ARE NO KNOWN WATER WELLS WITHIN 500 FEET OF THE FACILITY.
2. THE FACILITY WILL BE FENCED ON ALL SIDES. GATES WITH LOCKS WILL BE USED TO CONTROL ACCESS FROM THE ENTRANCE AND THE SOUTHEAST ROAD. REFER TO PART III, ATTACHMENT III-2, SECTION 1.1 FOR MORE INFORMATION.

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT

CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

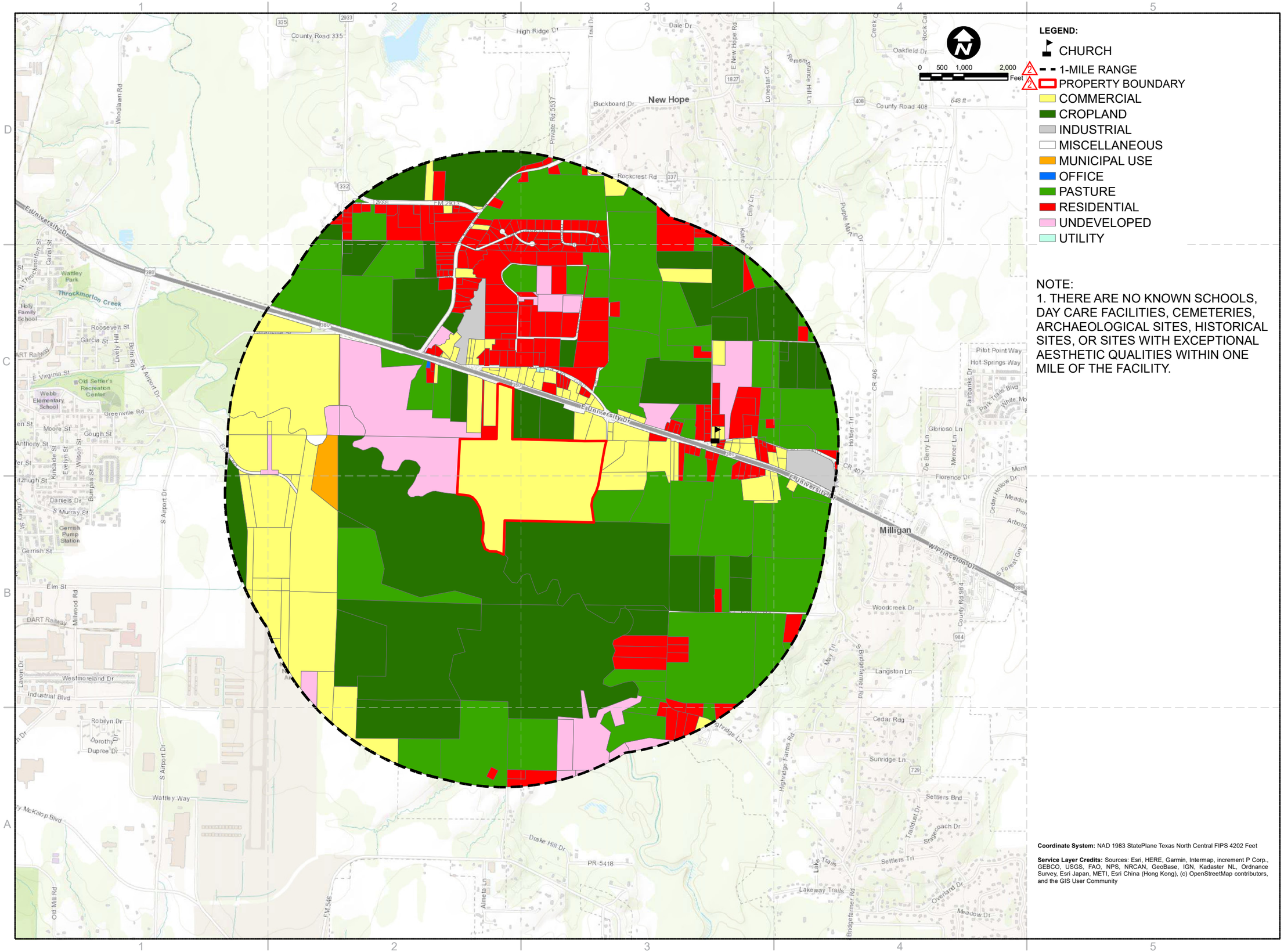
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

AERIAL PHOTOGRAPH

FIG.II-3.3

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\03_GIS\Fig II-3.3_Aerial Photo_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 10:19:03 AM USER: afranklin



NOTE:
1. THERE ARE NO KNOWN SCHOOLS, DAY CARE FACILITIES, CEMETERIES, ARCHAEOLOGICAL SITES, HISTORICAL SITES, OR SITES WITH EXCEPTIONAL AESTHETIC QUALITIES WITHIN ONE MILE OF THE FACILITY.

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT
CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

PROJECT NO.
6048.21

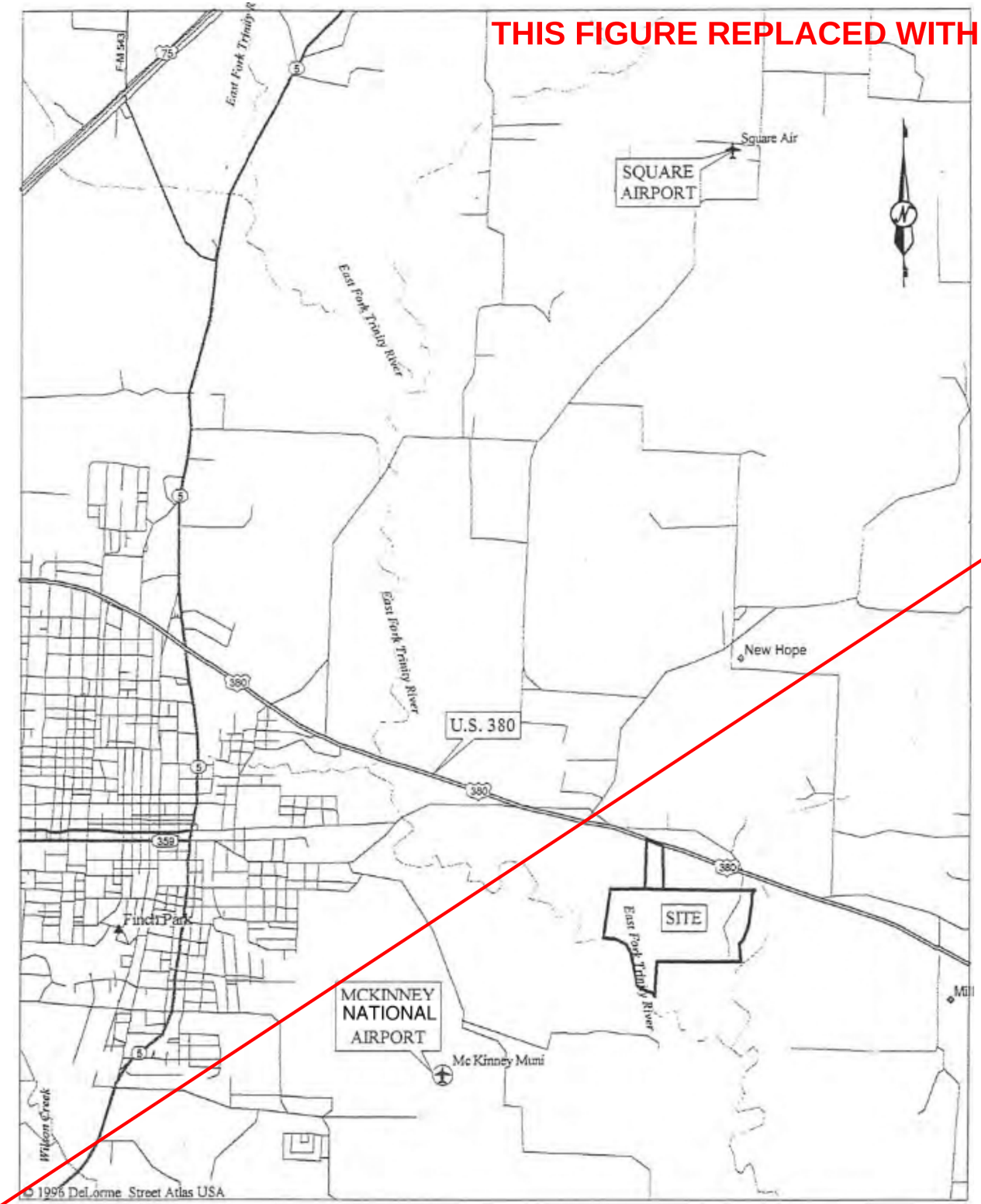
#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD 1

LAND USE MAP

FIG.II-3.4

FILE NAME: A:\2021\6048.2\103_DSGN\01_DWG\050_CIVIL\03_GIS\Fig II-3.4_Land Use Map_Rev02.mxd LAYOUT NAME: Layers PRINTED: Tuesday, June 21, 2022 - 10:21:44 AM USER: afranklin

THIS FIGURE REPLACED WITH FOLLOWING FIGURE



NOTE:
1. THIS FIGURE WAS ORIGINALLY PREPARED BY TECHNICO ENVIRONMENTAL INC. FOR MSW PERMIT NO. 2278 AND AMENDED BYPARKHILL IN SUPPORT OF MSW PERMIT NO. 2278A.

Parkhill

PARKHILL, SMITH & COOPER, INC. F-560
STATE OF TEXAS
SONIA SAMIR
129340
LICENSED
PROFESSIONAL ENGINEER

Sonia Samir
9/23/2021

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

CLIENT
CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION

LOCATIONS OF NEARBY AIRPORTS

FIG.II-3.6

PERMIT BOUNDARY

0 1 2 4 Miles

LEGEND:

Permit Boundary

AIRPORTS

Other than hard-surfaced runways

Seaplane Base

Hard-surfaced runways 1500 ft. to 8069 ft. in length

Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.

Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, or VORTAC location.

All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

ADDITIONAL AIRPORT INFORMATION

Private "(Pvt)" - Non-public use having emergency or landmark value

Military - Other than hard-surfaced; all military airports are identified by abbreviations AFB, NAS, AAF, etc.

Heliport Selected

Unverified

Abandoned - paved having landmark value, 3000 ft. or greater

Ultralight Flight Park Selected

OBSTRUCTIONS

1000 ft and higher AGL

Above 200 ft & below 1000 ft AGL (above 299 ft AGL in urban area)

Wind Turbine

Group Obstruction

Wind Turbine Farm

2894' UC

Elevation of the top above mean sea level

Height above ground

Under construction or reported: position and elevation unverified

2049 (1149) UC

Obstruction with high-intensity lights; may operate part-time

NOTICE: Guy wires may extend outward from structures.

Coordinate System: NAD 1983 2011 StatePlane Texas North Central FIPS 4202 FtUS

Service Layer Credits:

FAA SECTIONAL AERONAUTICAL CHART FORTH WORTH, PREPARED BY THE FEDERAL AVIATION ADMINISTRATION.

Parkhill

FOR PERMITTING PURPOSES ONLY
Parkhill.com

BAP KENNOR RECYCLING FACILITY
TCEQ MSW REGISTRATION NO. TBD
TARRANT COUNTY, TEXAS

CLIENT
BAP KENNOR LANDFILL, LLC

P.O. BOX 22790
HOUSTON, TX 77227

PROJECT NO.
1604.21

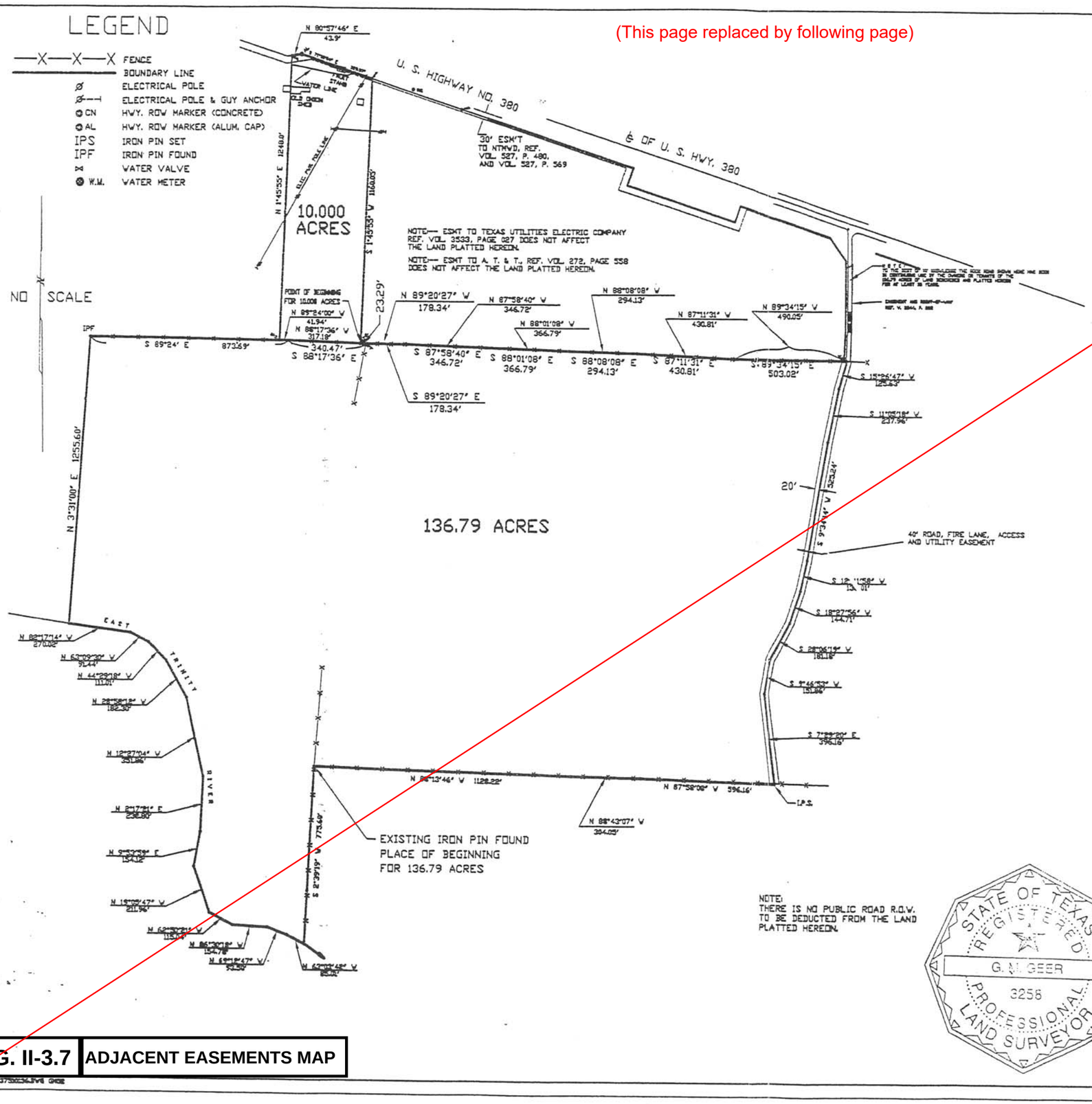
#	DATE	DESCRIPTION
02	June 2022	TECHNICAL NOD #1

LOCATIONS OF NEARBY AIRPORTS

FIGURE II-3.6

FILE NAME: A:\2021\60\48.2\103_DSGN\01_DWG\050_CIVIL\03_GIS\Fig II-3.6_Nearby Airports.mxd LAYOUT NAME: Layout1 PRINTED: Tuesday, June 21, 2022 - 10:24:40 AM USER: afranklin

(This page replaced by following page)



DESCRIPTION 10.000 Acre of Land

SITUATED IN Collin County, Texas, in the H. T. Chenoweth Survey, Abstract No. 157, being a resurvey of part of the 104 1/3 acres of land described in a deed from John Johnson to J. L. Doggett dated September 24, 1884, recorded in Volume 25, Page 530, of the Collin County Deed Records, being described by metes and bounds as follows:

COMMENCING at an iron pin found beside a corner post at the southeast corner of said 104 1/3 acre tract; Thence westerly with the north line of the 322.446 acre tract Reference Volume 794, Page 333 and with an old established fence and with the south line of said 104 1/3 acre tract as follows: North 89° 24' 19" West, 490.05 feet; North 87° 11' 31" West, 430.81; North 88° 08' 08" West, 294.13 feet; North 88° 01' 08" West, 366.79 feet; North 87° 58' 40" West, 346.72 feet; North 89° 20' 27" West, 178.34 feet; North 88° 17' 36" West, 23.29 feet to an iron pin set in said line and fence for a PLACE OF BEGINNING;

Thence westerly with said north line and said south line and with said old established fence as follows:

North 88° 17' 36" West, 317.18 feet; North 89° 24' 00" West, 41.94 feet to an iron pin set in said line and fence for a corner;

Thence north 1° 45' 55" east, 1248.0 feet to an iron pin set in the south R.O.W. line of U. S. Hwy No. 380 for a corner;

Thence easterly with said south R.O.W. line as follows:

North 80° 57' 46" East, 43.9 feet to an aluminum cap R.O.W. Mon. found;

South 71° 30' 04" East, 263.57 feet to an iron pin found for a corner;

Thence south 1° 45' 55" west, 1160.05 feet to the PLACE OF BEGINNING and containing 10.000 acres of land.

NOTE THIS NOTE APPLIES The 10 ACRES OF land platted hereon. The land platted hereon lies in Zone X outside the 500 year flood plain) and is located in the bounds of F.E.M.A. FIRM Panel 480853C0280 E dated April 2, 1991 and is therefore not in the 100 year flood plain.

DESCRIPTION 136.79 Acres of Land

SITUATED in Collin County, Texas, in the B. L. Hann Survey, Abstract No. 375, being a resurvey of the tract of land described in a deed from George Cantrell to B. J. Webster, dated December 15, 1978, recorded in Volume 1202, Page 487 of the Collin County Land Records, and a part of the 322.446 acres of land described in a deed from Carl P. Pratt and wife, Evelyn Ruth Pratt to James N. Muns and Rosa Forney, Trustees, dated August 23, 1971, recorded in Volume 794, Page 333 of the Collin County Deed Records, being described by metes and bounds as follows:

BEGINNING at an iron pin found beside a corner post at the west, southwest corner of said 322.446 acre tract;

Thence south 2° 39' 19" west, 773.49 feet with an established fence and with the east line of said Cantrell to Webster Tract to a point in the center of The East Fork of the Trinity River, at the southeast corner of said Cantrell to Webster Tract;

Thence generally in a northwesterly direction and with the center of said East Fork and with the south line of said Cantrell to Webster Tract as follows:

North 63° 09' 48" West, 85.01 feet;
North 69° 18' 47" West, 93.50 feet;
North 86° 30' 18" West, 154.78 feet;
North 62° 30' 21" West, 115.04 feet;
North 19° 05' 47" West, 211.96 feet;
North 9° 33' 09" East, 154.12 feet;
North 2° 17' 21" East, 236.80 feet;
North 12° 27' 04" West, 351.86 feet;
North 28° 58' 18" West, 182.30 feet;
North 44° 29' 18" West, 111.01 feet;
North 63° 09' 30" West, 91.44 feet;
North 88° 17' 14" West, 270.02 feet to a point in said East Fork, at the southeast corner of said Cantrell to Webster Tract;

Thence north 3° 31' 00" east, 1255.60 feet to an iron pin found at the northeast corner of said Cantrell to Webster Tract;

Thence easterly with an established fence and with the north line of said Cantrell to Webster Tract and with the north line of said 322.446 acre tract as follows:

South 89° 24' 00" East, 873.69 feet;
South 88° 17' 36" East, 340.47 feet;
South 89° 20' 27" East, 178.34 feet;
South 87° 58' 40" East, 346.72 feet;
South 88° 01' 08" East, 366.79 feet;
South 88° 08' 08" East, 294.13 feet;
South 87° 11' 31" East, 430.81 feet;
South 89° 34' 15" East, passing an existing iron pin set beside a corner post at 490.05 feet and continuing in all 503.02 feet to a point on the south edge of and in the east-west center of a steel pipe cattle guard, in said north line for a corner;

Thence southerly with the center of a rock road for as follows:

South 15° 26' 47" West, 125.63 feet; South 11° 05' 18" West, 237.96 feet;
South 9° 34' 14" West, 525.24 feet; South 12° 41' 58" West, 136.01 feet;
South 18° 27' 56" West, 144.71 feet; South 28° 06' 19" West, 181.18 feet;
South 9° 46' 32" West, 151.86 feet; South 7° 29' 20" East, leaving said rock road at approximately 308 feet and continuing in all 396.16 feet to an iron pin set in the south line of fence of said 322.446 acre tract;

Thence westerly with the south line of said 322.446 acre tract and with an old established fence as follows:

North 87° 58' 08" West, 596.16 feet; North 88° 43' 07" West, 304.05 feet;
North 88° 13' 46" West, 1128.22 feet to the PLACE OF BEGINNING and containing 136.79 acres of land.

CERTIFICATION TO McKINNEY 138, L.P., 380-McKINNEY, L.P., REPUBLIC TITLE OF TEXAS, INC. AND FIRST AMERICAN TITLE INSURANCE COMPANY GRT FILE NO. GF# McKinney 150/Brossman)

The undersigned does hereby certifies that on this the 4th day of September, 1996 a survey was made on the ground on the property legally described hereon prepared by the undersigned and is correct and accurate as to the boundaries and areas of the subject property and the size, location and type of buildings and improvements thereon, if any, and as to the other matters shown hereon, and correctly shows the location of all visible easements and rights-of-way, easements and any other matters of record, on of which I have knowledge or have been advised, whether of not of record, affecting the subject property.

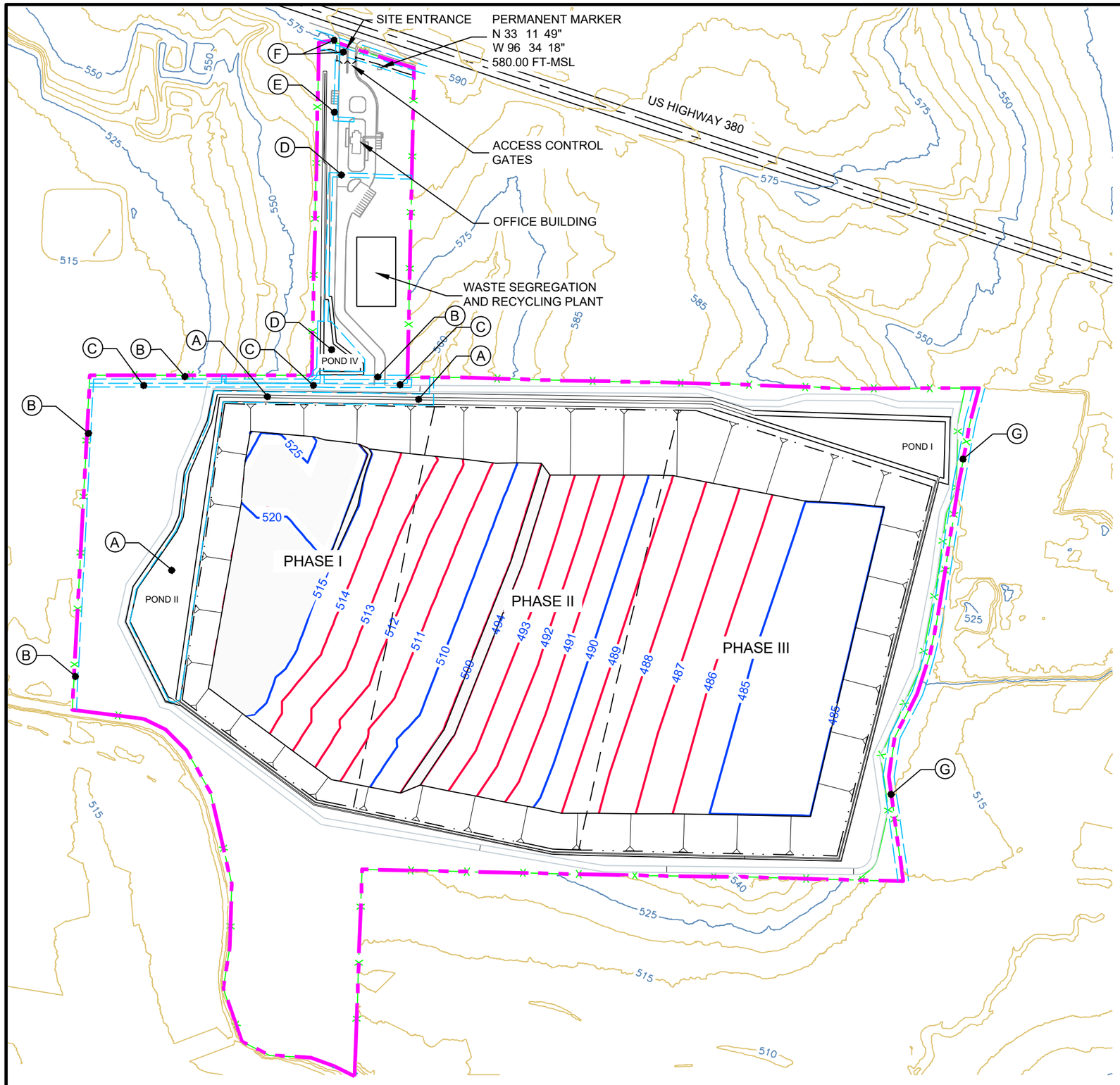
Except as shown on the survey, there are no visible discrepancies, conflicts, shortages in area, boundary line conflicts, encroachments, protrusions, overlapping of improvements, easements, or rights-of-way, except as shown on the plat hereony that the plat hereon is a true, correct and accurate representation of the property described hereinabove.

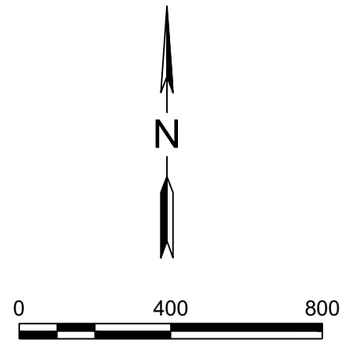
Adequate ingress to and egress from the subject property is provided for the 10 acres platted hereon by U. S. Hwy. 380, same being paved, dedicated public right-of-way maintained by the State of Texas.

G. M. GEER, REGISTERED PROFESSIONAL LAND SURVEYOR
TEX. REG. NO. 3258

1512 West University, Suite 380
McKinney, Texas 75069
Phone (214) 562-3959

FIG. II-3.7 ADJACENT EASEMENTS MAP





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADE ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
6. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- EXISTING TOPOGRAPHIC CONTOURS
- EARTHWORK GRADES
- EASEMENT LINE

EASEMENTS:

- (A) VARIABLE WIDTH DRAINAGE EASEMENT VOL. 2020, PG. 446
- (B) 15' SS EASEMENT INST. NO. 20150807010002820
- (C) 15' SS EASEMENT VOL. 2020, PG. 446
- (D) POND DRAINAGE & DETENTION EASEMENT VOL. 2020, PG. 446
- (E) 15' WATER EASEMENT VOL. 2020, PG. 446
- (F) 30' SEMT TO N.T.M.W.D. VOL. 527, PG 480 & VOL. 527, PG 569
- (G) 40' UTILITY EASEMENT

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
2	June 2022	TECHNICAL NOD #1

Site Easements Map

FIG.II-3.7

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\PERMIT\6048-21-FIGII-3.7.dwg LAYOUT NAME: FIGII-3.7 PRINTED: Tuesday, June 21, 2022 - 11:40am USER: afranklin

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-4 – Facility Layout Maps

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01 November 2021

Rev. 02 June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

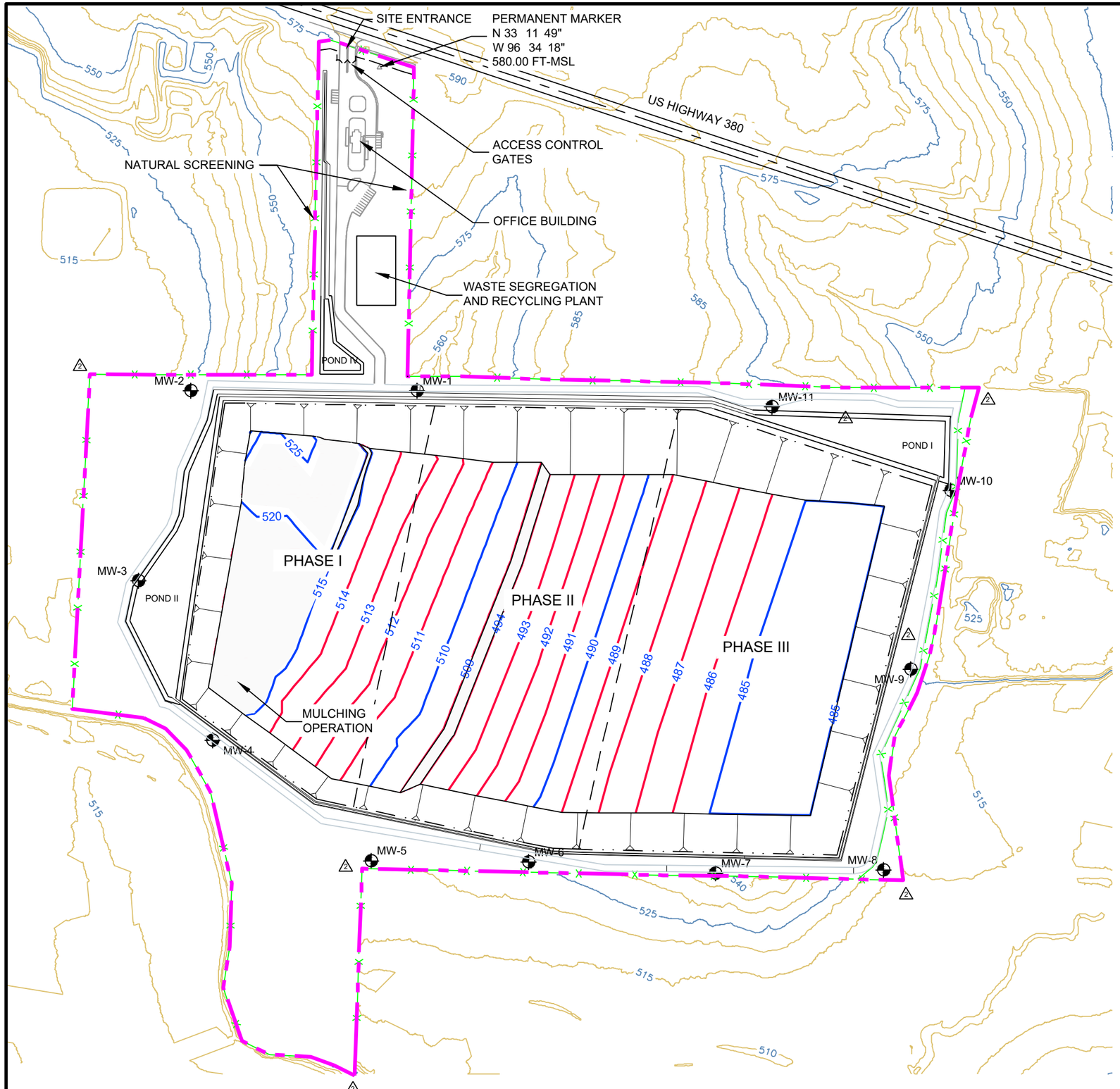
Parkhill Project No.: 016048.21

Attachment II-4 – Facility Layout Maps

TABLE OF CONTENTS

FIGURES

APPENDICES



N

0 400 800

NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. THE INTERNAL ROADS WILL BE CONSTRUCTED AT THE OPERATOR'S DISCRETION TO BEST FIT THE OPERATIONS.
2 5. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES
- MW-1 MONITORING WELLS

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

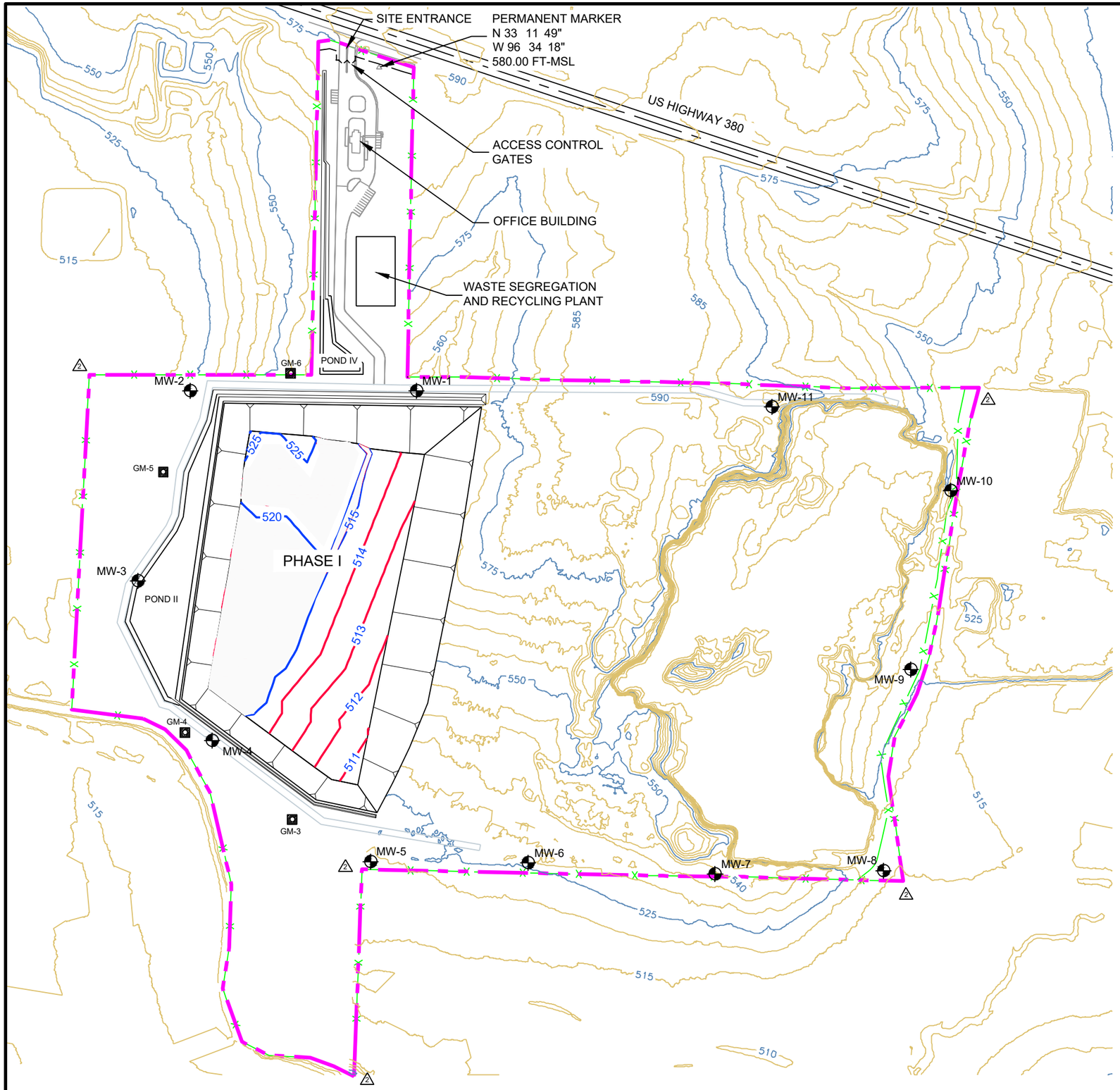
CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

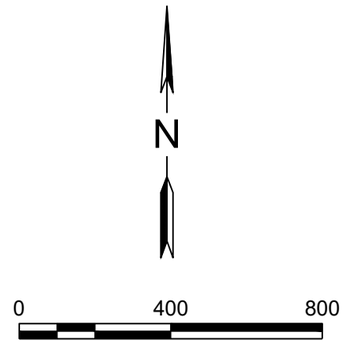
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
2	June 2022	TECHNICAL NOD #1

Phase Limits

FIG. II-4.1





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. ALTERNATE EXCAVATION CONTOURS AS SHOWN IN FIGURE AT-I-1-2B ARE ONLY VALID UPON APPROVAL OF MINING OPERATION BY THE TCEQ, IN ACCORDANCE WITH 30 TAC 330 SUB CHAPTER N.
2 5. ALL PHASES TO ACCEPT ONLY WASTE TYPES ALLOWED FOR A TYPE IV MSW LANDFILL FACILITY AS DEFINED UNDER 30 TAC 330.5(a)(2) AND AS AUTHORIZED BY THIS PERMIT.
2 6. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES
- MW-1 MONITORING WELLS 2
- GM-3 GAS MONITORING WELLS 2

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

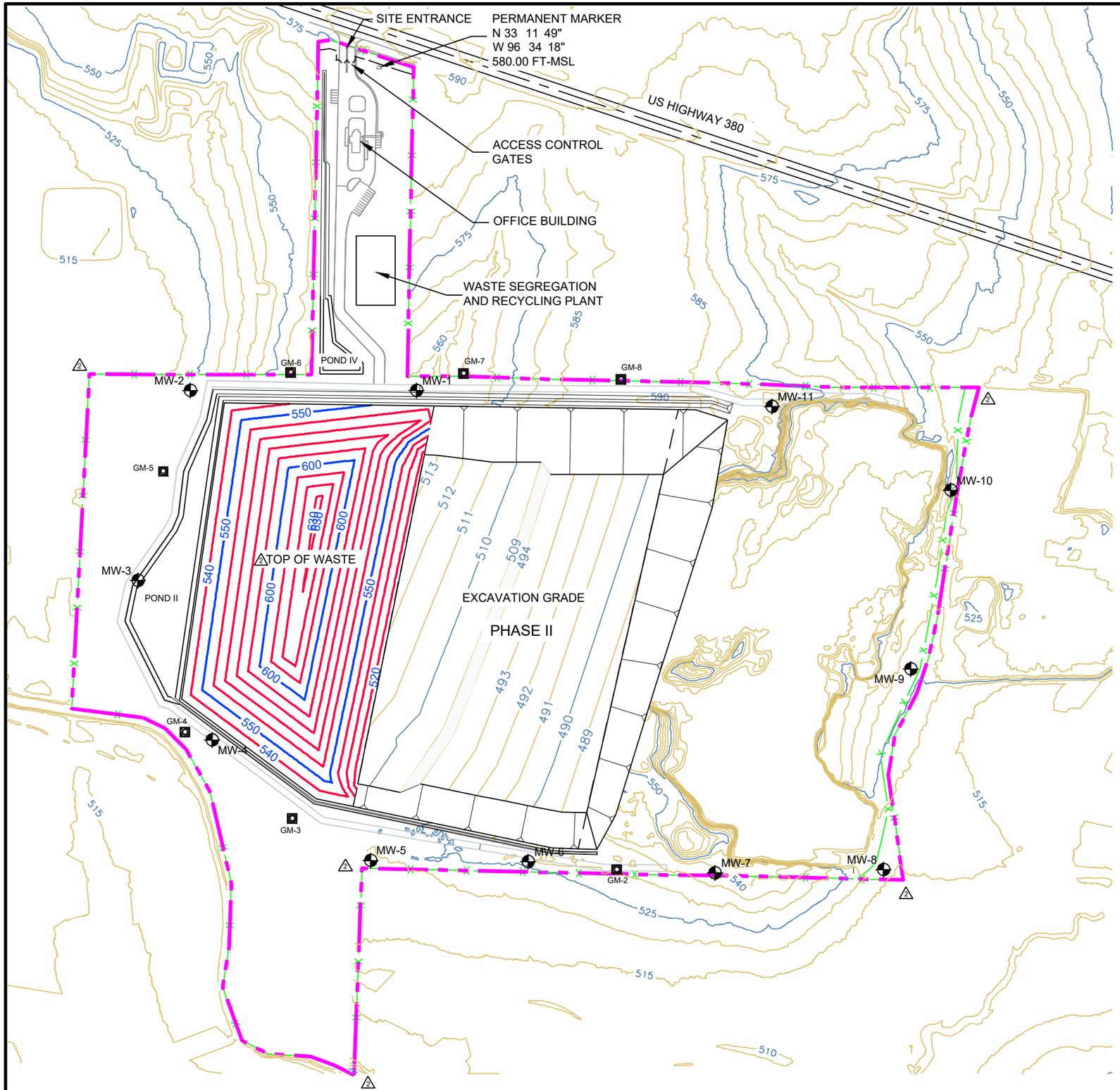
PROJECT NO.
6048.21

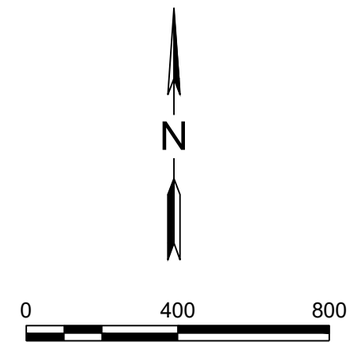
#	DATE	DESCRIPTION
2	June 2022	TECHNICAL NOD #1

Operational Sequence I

FIG.II-4.2

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\PERMIT\6048-21-FIGII-4.2.dwg LAYOUT NAME: FIGII-4.2 PRINTED: Tuesday, June 21, 2022 - 1:27pm USER: afrankli





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. ALTERNATE EXCAVATION CONTOURS AS SHOWN IN FIGURE AT-I-1-2B ARE ONLY VALID UPON APPROVAL OF MINING OPERATION BY THE TCEQ, IN ACCORDANCE WITH 30 TAC 330 SUB CHAPTER N.

△2 5. ALL PHASES TO ACCEPT ONLY WASTE TYPES ALLOWED FOR A TYPE IV MSW LANDFILL FACILITY AS DEFINED UNDER 30 TAC 330.5(a)(2) AND AS AUTHORIZED BY THIS PERMIT.

△2 6. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES
- MW-1 MONITORING WELLS △2
- GM-2 GAS MONITORING WELLS △2

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

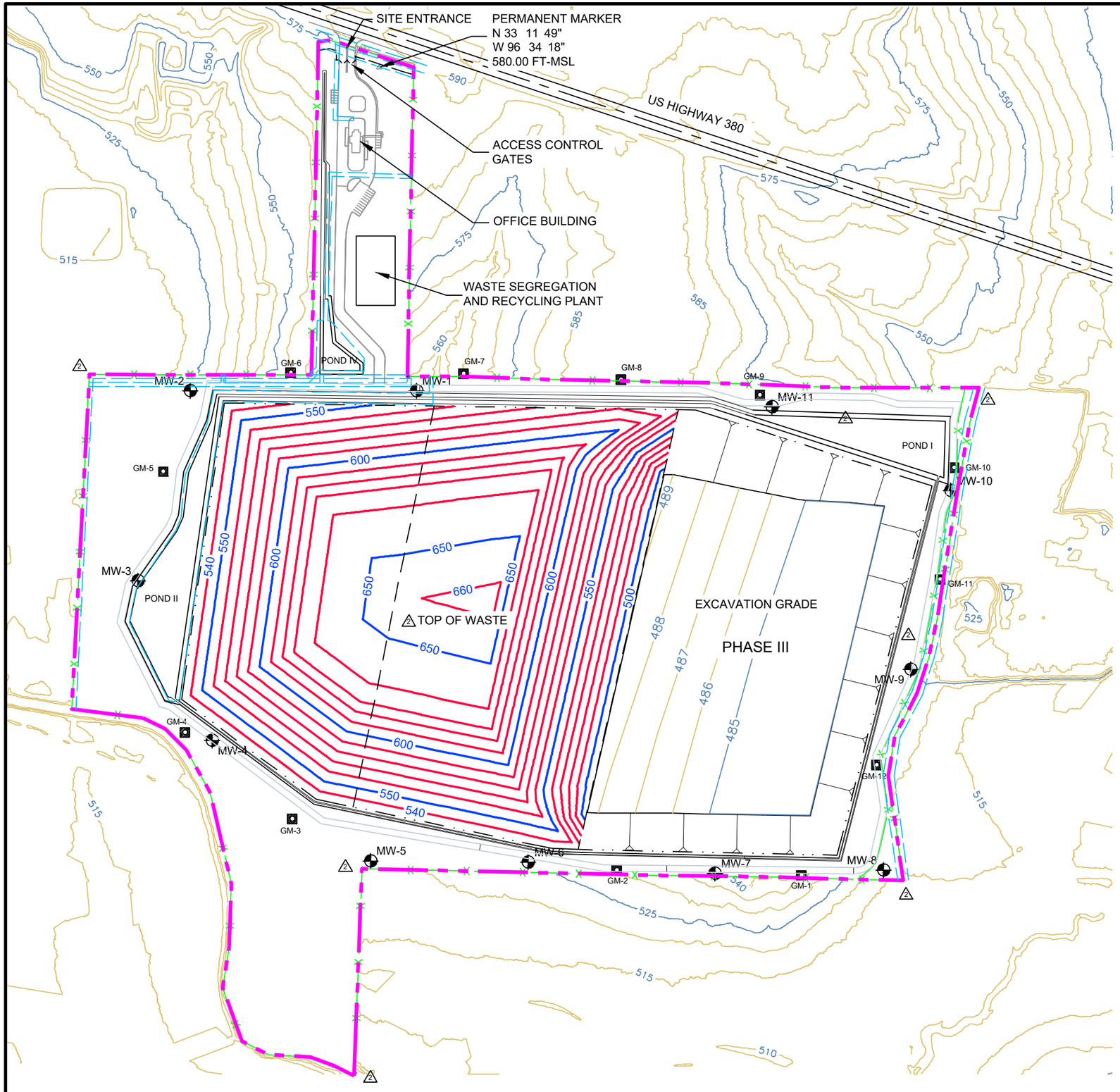
PROJECT NO.
6048.21

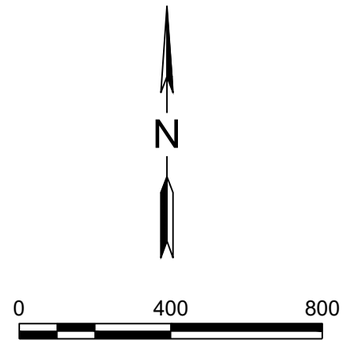
△2 June 2022 TECHNICAL NOD #1

#	DATE	DESCRIPTION

Operational Sequence II

FIG.II-4.3





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. ALTERNATE EXCAVATION CONTOURS AS SHOWN IN FIGURE AT-I-1-2B ARE ONLY VALID UPON APPROVAL OF MINING OPERATION BY THE TCEQ, IN ACCORDANCE WITH 30 TAC 330 SUB CHAPTER N.

△2 5. ALL PHASES TO ACCEPT ONLY WASTE TYPES ALLOWED FOR A TYPE IV MSW LANDFILL FACILITY AS DEFINED UNDER 30 TAC 330.5(a)(2) AND AS AUTHORIZED BY THIS PERMIT.

△2 6. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES
- MW-1 MONITORING WELLS △2
- GM-2 GAS MONITORING WELLS △2

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

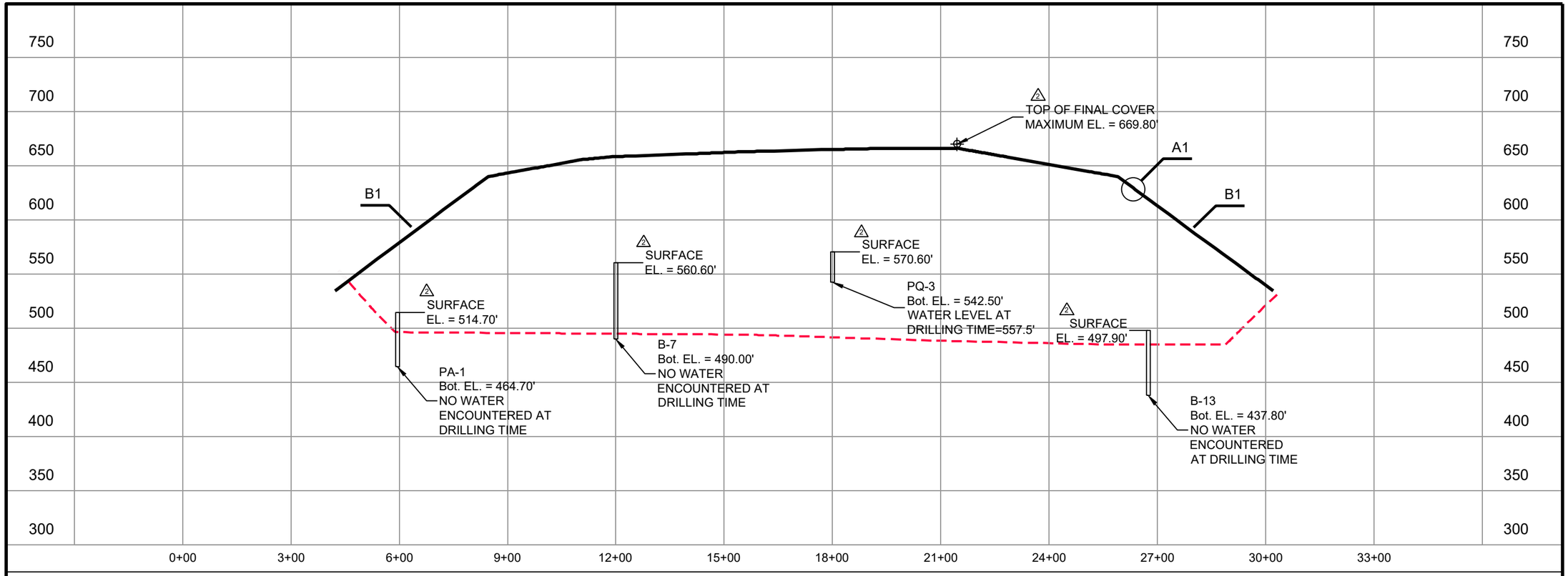
CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

△2 June 2022 TECHNICAL NOD #1
DATE DESCRIPTION

Operational Sequence III

FIG.II-4.4



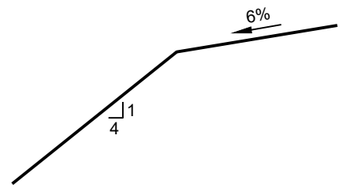
C1 LANDFILL CROSS-SECTION A-A'

1" = 300'

SCALES:

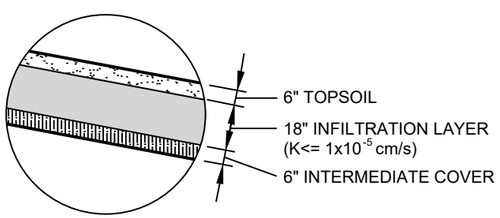
HOR. 0 300 FEET

VER. 0 100 FEET



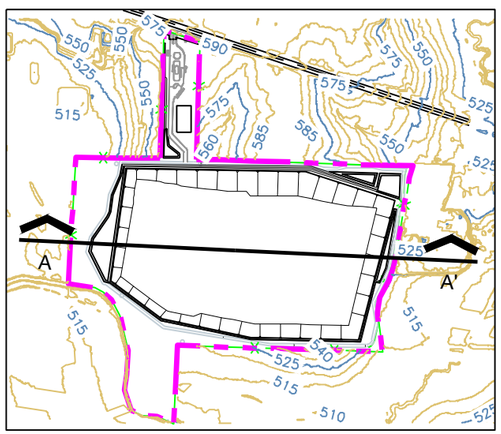
B1 SIDESLOPE ⚠2

NOT TO SCALE



A1 TYPICAL FINAL COVER ⚠2

NOT TO SCALE



KEY MAP

NOTE:

1. EXCAVATION DEPTHS IN THE CROSS-SECTIONS ARE FROM THE ALTERNATE EXCAVATION PLAN TO ILLUSTRATE THE MAXIMUM PERMITTED BOTTOM ELEVATIONS FOR THE LANDFILL.
⚠2 2. ALL ELEVATION VALUES ARE IN FEET ABOVE MEAN SEA LEVEL (FT-MSL).
⚠2 3. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PERIMETER ROAD
- EXISTING TOPOGRAPHIC CONTOURS
- LIMITS OF EXCAVATION PROFILE
- TOP OF FINAL COVER PROFILE

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
⚠2	June 2022	TECHNICAL NOD #1

Cross-Section A-A'

FIG.II-4.5

CRWC TYPE IV LANDFILL
MCKINNEY, COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2278A

APPENDIX II-4A
CONSTRUCTION AND DEVELOPMENT OF CRWC TYPE IV LANDFILL

Prepared for:

Construction Recycling & Waste Corporation
2650 East University Drive
McKinney, Texas 75069

Revised by:

Parkhill

Parkhill, Inc.
3000 Internet Boulevard, Suite 550
Frisco, Texas 75034
TBPE F-560

Revised September 2021
& June 2022

INTENDED FOR PERMITTING PURPOSES ONLY

APPENDIX II-4A
CONSTRUCTION AND DEVELOPMENT OF CRWC TYPE IV LANDFILL

TABLE OF CONTENTS

TABLES

GOLDER ASSOCIATES INC.
Professional Engineering Firm
Registration Number F-2578

For September 2021 &
June 2022 Revisions Only

INTENDED FOR PERMITTING PURPOSES ONLY

1. Sequence of Site Development

The pattern of waste disposal will be governed by the area fill disposal method. Landfilling will occur below-grade and above-grade, depending on the status of development. Initially, filling will occur below-grade in a new landfill cell.

The designed facility will generally be developed in three phases. Each phase may contain multiple cells, at the owner's discretion. Site layout and phasing plans are presented as Part III, Attachment III-4, Figures III-4.23 through III-4.5. ~~The proposed waste filling will begin in Phase I at the western end of the site, nearest the gatehouse.~~ Phase I was constructed in two cells. The liner construction for both the Phase I cells has been completed, and Phase I is currently accepting waste. Phase II and III will be developed in multiple cells, at the operator's discretion, to accommodate the most efficient operations~~, continuing into Phases II and III~~. The above-grade filling will progress to intermediate grades to allow access to the active area in each subsequent phase. ~~The final cover grades are shown on excavation grades are shown on Part III, Attachment 1, Figures AT-I-1-1 and AT-I-1-2. Part III, Attachment III-4, Figure III-4.5, and t~~The excavation grades are shown on Part III, Attachment III-4, Figures III-4.1A and III-4.1B.

The facility's infrastructure and buildings consist of a perimeter fence and gates, a gatehouse and scale, a recycling area, a composting area, all-weather roads, gas monitoring probes, groundwater monitoring wells, and solid waste disposal areas. In addition, there are controls for stormwater run-off/run-on consisting of berms, channels, detention ponds, and other associated drainage structures.

Site personnel lock a gate located at the facility's entrance at the end of the day's operations. Part III, Figure III-4.8 presents a drawing of the site entrance. A perimeter fence provides continuous security and access control around the permit boundary. One additional gate will control access from the quarry truck road east of the site. This gate will remain locked at most times and will only be used for quarry vehicles or equipment used during the construction of the facility.

The Operational Sequence drawings, Part III, Attachment III-4, Figures III-4.23 through III-4.5, present the basic sequence that will be followed.

Groundwater and landfill gas monitoring will be on-going activities for the life of the site. The construction sequencing, including ~~new~~ construction of ~~groundwater monitoring wells and~~ gas monitoring probes is discussed in Table 1.

~~Add-on berms and swales placed on the cover of the landfill will collect accumulated stormwater on the top of the development landfill and will route it to downchutes (flumes). The downchutes will route the collected surface water to perimeter channels located at the base of the disposal area.~~ The perimeter channels will route the collected surface water through detention ponds. The detention pond will attenuate discharges, facilitate sediment removal, and prevent significant increases in the peak flows leaving the site.

1.1. Schedule of Development

The ~~proposed~~ schedule of development for this site is presented in Table 1.

TABLE 1 – SCHEDULE OF DEVELOPMENT

Landfill Operations	
Phase I	
1.0	Construction of the site entrance/access road connections and other improvements at the intersection to U.S. Highway 380 per the TxDOT approved construction plans is complete.
1.1	~~Install~~Construction of the perimeter fencing, the locking access gates, the gatehouse, the entrance driveway, the greenbelt, and the perimeter all-weather access road to the Phase I area, as shown on Part III, Attachment III-4, Figure III-4.2, is complete.
1.2	Construction of the permanent drainage ditch, detention Pond IV, and associated drainage appurtenances adjacent to the site entrance and driveway, as shown on Part III, Attachment III-4, Figure III-4.2 is complete.
1.3	Construction of the permanent site perimeter access road and drainage ditch around the Phase I area, Pond II, and related drainage appurtenances~~, and contaminated water evaporation basin (Pond III),~~ as shown on Part III, Attachment III-4, Figure III-4.3 is complete.
1.4	~~Install g~~Groundwater monitoring wells MW-1~~,~~ through MW-11~~MW-2, MW-3, MW-4, and MW-5~~, and ~~install~~ gas monitoring probes GM-3, GM-4, GM-5, and GM-6~~, as identified on Part III, Attachment III-4, Figure III-4.5~~ have been installed.
1.5	~~Construct cells in~~ Phase I~~.~~ cell ~~C~~construction ~~including~~includes excavation, underdrain system, liner system, protective cover, temporary erosion controls, temporary stormwater storage, stormwater diversion, and markers, is complete.

	Phase I is currently accepting wasteBegin waste fill activities to the approximated interim grades shown on Part III, Attachment III-4, Figure III-4.23.
Phase II	
2.0	Complete construction of the permanent site perimeter access road and drainage ditch around the Phase II area and related drainage appurtenances, as shown on Part III, Attachment III-4, Figure III-4.3.
2.1	Install groundwater monitoring wells MW-6, and install gas monitoring probes GM-2, GM-7, and GM-8, as identified on Part III, Attachment III-4, Figure III-4.65.
2.2	Construct cells in Phase II in multiple cells at the operator's discretion to accommodate the most efficient operations. Construction includes excavation, underdrain system, liner system, protective cover, temporary erosion controls, temporary stormwater storage, stormwater diversion, and markers. Continue waste fill activities to the approximated interim grades shown on Part III, Attachment III-4, Figure III-4.34.
Phase III	
3.0	Complete construction of the permanent site perimeter access road and ditch around the Phase III area, detention pPonds I(Ponds I and V), and related drainage appurtenances, as shown on Part III, Attachment III-4, Figure III-4.4.
3.1	Install groundwater monitoring wells MW-7, MW-8, MW-9, MW-10, and MW-11 and install gas monitoring probes GM-1, GM-9, GM-10, GM-11, and GM-12, as shown on Part III, Attachment III-4, Figure III-4.65.
3.2	Construct cells in Phase III. Construction includes excavation, underdrain system, liner system, protective cover, temporary erosion controls, temporary stormwater storage, stormwater diversion, and markers.
Phase IV	
4.0	Continue waste fill activities to the final waste grades (i.e. the final contour grades as shown on Part III, Attachment III-4, Figure III-4.5, minus the final cover thickness) and complete final cover construction over the entire waste footprint area as shown on Part III, Attachment III-4, Figure III-4.5. Install perimeter stormwater and erosion controls in accordance with Part III, Attachment III-126, Final Closure PlanFacility Surface Water Drainage Report, and Figure AT-VII-1-1III-6-2.
Closure/post-closure care	
1.0	Post closure signs.
2.0	Notify TCEQ of intent to close.
3.0	Submit closure certification.
4.0	At completion of final cover for the entire facility, file Affidavit to Public to notify of complete closure of the facility.

1.1.1. Excavation, Backfill, and Bottom Liner Construction

Throughout the development of the site, the general excavation sequence will be as follows:

1. Construct temporary erosion controls, including diversion berms, channels, silt fences, and sediment basins, as needed.
2. Excavate or backfill to top of excavation grade elevations as shown on Part III, Attachment III-4, Figure III-4.2A and III-4.2B.
3. Construct an underdrain system and a liner system in accordance with the Soil Liner Quality Control Plan as provided in Part III, Attachment III-8.

1.1.2. General Filling Sequence

The general filling sequence will be as follows:

1. Establish the location of the initial working face in a new cell. This will consist of filling the area with waste and constructing upgradient berms as necessary until the entire lined area has been covered with waste including weekly cover or an approved alternate.
2. Maintain a small working face, as indicated in Part IV. Place waste in lifts, as determined by the on-site operator. Construct stormwater run-on/run-off control berms in accordance with Part III, Attachments III-6 and III-7.
3. Grade interior waste slopes at a maximum slope of 3H:1V.

1.1.3. Closure and Post-Closure Care

Closure and Post-Closure care of the facility are discussed in Part III, Attachment III-12 and Attachment III-13, respectively.

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-6 – Transportation and Airport Safety

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment II-6 – Transportation and Airport Safety

TABLE OF CONTENTS

APPENDICES

1. Transportation (§330.61(i))

This section summarizes the analysis of potential impact of the CRWC Type IV Landfill on area transportation, including analysis ~~which was~~ completed by Technico Environmental, Inc. in support of the originial permit application. ~~The changes proposed by this permit amendment do not affect any parameters of this determination.~~

No special consideration relating to transportation is anticipated.

1.1. Availability and Adequacy of Roads (§330.61(i)(1))

U.S. Highway 380 is the major public thoroughfare in the area. It is adjacent to the north entrance of the property ~~, at a distance of approximately 1200 feet from the landfill facility~~. All public and commercial hauling trucks going to the landfill will travel along this highway. An all-weather entrance service road to and from the landfill connects the site to U.S. Highway 380. Generally, the paved R-O-W of U.S. Highway 380 is 40 feet wide. Its R-O-W is about 160 feet wide in the vicinity of the proposed landfill, 200 feet wide in the City of McKinney, and 120 feet wide east of the proposed site. This Highway is constructed of asphalt concrete with a 10 inch thick flexible base. The tare weight load limit for this Highway, as set by the Texas Department of Highways & Transportation is at the legal limit of 40 tons (80.000 pounds). The waste hauling trucks that will travel along U.S. Highway 380 to this landfill will weigh between 2 to 35 tons (4000 to 70,000 pounds). The trucks now hauling stone from the quarry (the site of the proposed landfill) weigh about 40 tons and travel along this Highway.

1.2. Volume of Vehicular Traffic on Access Road Within One Mile of Landfill (§330.61(i)(2))

The September 1999 Texas Department of Transportation (TxDOT) ~~records show~~ letter indicates that the average daily traffic for the year 1998 at a location just east of FM 1827 on U.S. Highway 380 (close to the entrance of the CRWC Type IV Landfill) was 17,000 vehicles per day (vpd), with an ~~. The~~ anticipated ~~average daily~~ traffic ~~for the year 2005 at the same location east of FM 1827 on U.S. Highway 380 is estimated at 20,200 vpd, a projected increase of 3,200 vpd in 7 years. On the basis of this trend, it is expected that the volume of traffic along U.S. Highway 380 in the vicinity of this landfill will continue to~~ increase ~~at the~~ rate of 2.5% ~~per year during the life of the landfill to 28,000 vpd~~. The letter also indicates that the expansion of U.S ~~,~~ . Highway 380 to a four-lane divided highway between the City of McKinney and a point east of the CRWC site, significantly increased the traffic capacity of this highway.

~~The Texas Department of Transportation stated: "The maximum capacity of a 4-lane regional, rural arterial such as US 380 is approximately 38,000 vehicles per day in both directions" (~~The TxDOT~~Texas Department of Transportation~~ letter dated September 30, 1999, is presented in Appendix~~Attachment~~ II-6A. According to the TxDOT Traffic Count Database System (TCDS), the 2020 AADT for U.S. 380 was 40,393. ~~Large trucks similar to those that haul waste to the landfill have been going in and out of this site for many years, transporting gravel and rock from the limestone quarry via U.S. 380. The 1997 Traffic Map of Collin County and the latest modification dated September 30, 1999 are presented in Attachment II-6.~~

1.3. Projected Volume of Traffic which the Landfill Will Generate (§330.61(i)(3))

The ~~initial~~ increase in traffic ~~due~~ on U.S. Highway 380 due to the operations of this ~~landfill~~Facility ~~will~~ is anticipated to be 200 to 300 vpd, with an average being 250 vpd. In 2021, the AADT recorded for the Facility was 372 (186 vpd) and the 2020 AADT for U.S. Highway 380 was 40,393. The traffic volume due to the operations of this Facility is less than 1% of the total traffic volume of U.S. Highway 380. The Facility traffic is anticipated to increase by less than 2% per year, resulting in a very minor increase in the traffic volume accessing the Facility. ~~When the landfill is in full operation, the quarry operation will stop, and the rock hauling trucks will be replaced by waste hauling trucks. The 2020 TXDOT AADT for U.S. Highway 380 is 40,393.~~ The increase of traffic volume as a result of this permit amendment~~due to landfill operations~~ will be of minor impact (<1% increase in traffic volume) along U.S. Highway 380. ~~Correspondence with the Texas Department of Transportation regarding the insignificant impact of the landfill traffic on U.S. Highway 380 is provided in Attachment II-6.~~

The City of McKinney will design and construct a traffic signal with left turn signalization at the intersection of University Drive (U.S. Highway 380) and the entrance to the Facility, to prevent the occurrence of collisions at and about the currently uncontrolled intersection. The Facility has entered into an escrow agreement with the City of McKinney for the construction of the traffic signal. A copy of the executed agreement is included in Appendix II-6C.

1.4. Impact of Facility on Airports (§330.61(i)(5))

Consistent with 30 TAC §330.61(i)(5), this section analyses the potential impact of the CRWC landfill on airports in accordance with 30 TAC §330.545 (related to Airport Safety).

The CRWC Type IV Landfill is located within 10,000 feet of the McKinney National Airport runway end (used by turbojet aircraft) as shown on Figure II-3.6. As such, this application

must demonstrate that the proposed vertical expansion (~~limited to an~~ increase in excavation depth and~~with no~~ increase to the maximum waste elevation) will not pose a bird hazard to aircraft. This landfill will only accept Type IV (that is non-putrescible) solid waste, which does not attract birds. As such, the landfill's potential to pose a bird hazard to aircraft is negligible. Nonetheless, the following measures will be implemented

- Waste will be covered weekly
- The working face will be maintained at the smallest practicable size
- Bird populations and activities (if any) will be monitored and controlled.

The facility is an existing landfill, and a lateral expansion is not proposed. As such, no airport notification is required for the proposed amendment.

Documentation of coordination with~~A 1997 letter from~~ the Federal Aviation Administration (FAA)~~ documenting no objection to the landfill's location (in support of the original permit)~~ has been included in Attachment II-6. The conditions established by this correspondence~~letter~~ are addressed above.

APPENDIX II-B

FAA CORRESPONDENCE

Austin Franklin

From: noreply@faa.gov
Sent: Wednesday, May 18, 2022 7:19 AM
To: Austin Franklin; tnoons@mckinneylandfill.com
Subject: Status of FAA Filing

Your filing is assigned Aeronautical Study Number(s) (ASN): 2022-ASW-11310-OE, 2022-ASW-11307-OE, 2022-ASW-11308-OE, 2022-ASW-11309-OE.

To review your electronic record, go to our website oeaaa.faa.gov and select the Search Archives link to locate your case using the assigned Aeronautical Study Number (ASN).

The FAA verified your filing and an aeronautical study has been initiated. Please allow a minimum 45 days for the FAA to complete the study. Please refer to the assigned ASN on all future inquiries regarding this filing.

For Wind Turbine proposals only, please ensure Wind Turbine Data as described on the project summary page in your registered e-filing account has been uploaded to your filing.

To ensure e-mail notifications are delivered to your inbox please add noreply@faa.gov to your address book. Notifications sent from this address are system generated FAA e-mails and replies to this address will NOT be read or forwarded for review. Each system generated e-mail will contain specific FAA contact information in the text of the message.

Austin Franklin

From: Cardenas, Debbie (FAA) <Debbie.Cardenas@faa.gov>
Sent: Tuesday, June 21, 2022 4:12 PM
To: Austin Franklin
Subject: RE: Status of FAA Filing 2022-ASW-11290-OE (TER)

Austin,

The entire project is making its way through the process. Unfortunately, due to the high volume of C-Band/5G filings it's taking longer than usual. I cannot speak for the workload of the internal office who has not responded. We do our best to expedite all cases.

Thanks,

Debbie Cardenas

FAA – Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177
Email: debbie.cardenas@faa.gov
Phone: (817) 222-5922
https://oeaaa.faa.gov

From: Austin Franklin <AFranklin@parkhill.com>
Sent: Tuesday, June 21, 2022 9:03 AM
To: Cardenas, Debbie (FAA) <Debbie.Cardenas@faa.gov>
Subject: FW: Status of FAA Filing 2022-ASW-11290-OE (TER)

Good Morning Debbie,

Per the attached notification, I have re-filed notice for this project under 4 separate studies (one for each corner of the landfill), which have been assigned the following ASNs: 2022-ASW-11307-OE, 2022-ASW-11308-OE, 2022-ASW-11309-OE, 2022-ASW-11310-OE.

It has been almost 45 days since the notice was filed, which as I understand, is the general timeline for FAA review. I was wondering if you could give me any update on the status of this review, and when we can expect a determination. We would like to include the FAA's determination with a permit application to the State, and we have to submit the application by next Monday (6/27). If I need to submit any additional or clarifying information, I would be happy to do so.

If I need to send this request to someone else, please let me know.

Thanks,

Austin Franklin
Civil Engineer-in-Training

Parkhill
O: 469.200.7194 | M: 817.964.8727
AFranklin@parkhill.com

Please note that our email domain and website have changed to Parkhill.com.

From: noreply@faa.gov <noreply@faa.gov>
Sent: Thursday, May 12, 2022 1:10 PM
To: tnoons@mckinneylandfill.com; Austin Franklin <AFranklin@parkhill.com>
Subject: Status of FAA Filing 2022-ASW-11290-OE (TER)

Your filing is assigned Aeronautical Study Number 2022-ASW-11290-OE.

The aeronautical study has been terminated. For additional information, please contact Debbie Cardenas via phone: (817) 222-5922 or email: debbie.cardenas@faa.gov. Please refer to the assigned ASN on all future inquiries regarding this filing.

To ensure e-mail notifications are delivered to your inbox please add noreply@faa.gov to your address book. Notifications sent from this address are system generated FAA e-mails and replies to this address will NOT be read or forwarded for review. Each system generated e-mail will contain specific FAA contact information in the text of the message.

This email has been scanned for spam and viruses by Proofpoint Essentials. Click here to report this email as spam.

APPENDIX II-6C

TRAFFIC SIGNAL ESCROW AGREEMENT

ESCROW AGREEMENT
BETWEEN BRITISH AMERICAN PROPERTIES OF TEXAS, INC., AND THE CITY OF McKINNEY
CONCERNING THE CONSTRUCTION OF A TRAFFIC SIGNAL AT UNIVERSITY DRIVE (US 380) AND THE ENTRY TO 380 McKINNEY C & D LANDFILL

THIS ESCROW AGREEMENT, is entered into effective the 15 day of March, 2022, by and between ***CITY OF McKINNEY***, a Texas municipal corporation and home-rule city ("City"), and ***BRITISH AMERICAN PROPERTIES OF TEXAS, INC.***, a Texas corporation, whose address is 410 Pierce Street, Houston, Texas 77002, witnesseth that:

WHEREAS, ***BRITISH AMERICAN PROPERTIES OF TEXAS, INC.***, owns the 380 McKinney C & D Landfill, a Type IV Construction & Demolition Landfill, ("Owner") located at 2540 E. University Drive in McKinney, Texas 75069; and

WHEREAS, the Owner and City desire to enter into this Escrow Agreement ("Agreement") concerning the construction of a multiple-leg traffic signal at the intersection of University Drive (US 380) and the entry to the 380 McKinney C & D Landfill (the "Project") in McKinney, Collin County, Texas; and

WHEREAS, the Owner and City have determined that the Project is necessary due to the increased traffic and occurrence of collisions at and about this uncontrolled intersection; and

WHEREAS, the Owner and City have determined that the Project may be constructed most economically by implementing this Agreement.

NOW, THEREFORE, this Agreement is made and entered into by the Owner and the City upon and for the mutual consideration stated herein.

ARTICLE I.
Recitals Incorporated by Reference

The foregoing recitals are hereby incorporated into the body of this Agreement and shall be considered part of the mutual covenants, consideration and promises that bind the parties.

ARTICLE II.
Location and Design and Construction

The City shall arrange to design and construct the Project. The Project shall consist of designing and constructing the traffic signal together with left-turn signalization and all

appurtenances related thereto at the intersection of University Drive (US 380) and the entry to the 380 McKinney C & D Landfill. The proposed traffic signal is warranted under the Texas Uniform Manual of Traffic Control Devices. All improvements shall be designed to meet or exceed the City's and TxDOT's roadway design standards and criteria and shall be constructed in accordance with the plans and specifications approved by the City and TxDOT.

ARTICLE III.
City to Take Lead on Project

It is agreed that the City is responsible for constructing the Project. The City shall prepare plans and specifications for the improvements, accept bids and award a contract to construct the improvements and administer the construction contract. In all such activities, the City shall comply with all statutory requirements applicable to a municipal public work project. The City shall provide the Owner with a copy of the executed design and construction contract(s) for the Project. Owner agrees and understands that the City makes no assurances or representations that the Project will be constructed and accepted prior to any date certain.

ARTICLE IV.
Right-of-Way and Easements

City is not required to obtain any additional right-of-way or easements in connection with the Project.

ARTICLE V.
Escrow

A. *Estimated Project Costs and Owner Participation*.

1) The City estimates the total actual cost of the Project to be Three Hundred Fifteen Thousand Six Hundred Dollars ($315,600.00) ("Estimated Project Cost"). The Owner agrees to participate in the Project by depositing a cash amount of One Hundred Fifty-Seven Thousand Eight Hundred Dollars ($157,800.00) (the "Owner Participation Amount") with the City for the performance of the Project. The Owner Participation Amount is an amount equal to fifty percent (50%) of the Estimated Project Cost associated with the design, construction, installation, and signal equipment costs of the Project.

2) The Estimated Project Cost also includes a projected cost of purchasing a payment bond and performance bond, which meet the requirements of Chapter 252 of the Texas Local Government Code and Chapter 2253 of the Texas Government Code, in the full amount of the Project. The Estimated Project Cost also includes a projected cost of purchasing a maintenance bond in the amount of fifteen percent (15%) of the estimated cost of the improvements from a reputable and solvent corporate surety, in favor of City, to indemnify City against any repairs

arising from defective workmanship or materials used in any part of the construction of the improvements to Property, for a period of two (2) years from the date of final acceptance of such improvements.

3) As used herein, the terms "Estimated Project Cost" and "Actual Project Cost" may include engineering, construction, inspection, testing, street lighting, and construction administration costs including contingencies.

B. *City Access to Owner's Property, if Necessary*.

The Owner agrees that the City shall have the right to enter upon Owner's property to survey, stake, bore, construct, and install the Project at such time as the City deems necessary. The City may at its sole option and discretion enter into one or more agreements with third parties who shall be authorized to construct the Project and enter upon Owner's property to survey, stake, bore, construct and install the Project at the City's direction. Owner specifically authorizes the City to utilize the funds escrowed pursuant to this Agreement to pay for the construction of the Project and all necessary appurtenances to said Project.

ARTICLE VI.
No Waiver

Owner expressly acknowledges that by entering into this Agreement, Owner, its successors, assigns, vendors, grantees, and/or trustees, shall not construe any language contained herein or in any exhibits as waiving any of the requirements of the Zoning Ordinance or Subdivision Ordinance or any other ordinance of the City except as herein specifically agreed.

ARTICLE VII.
Indemnity and Hold Harmless Agreement

OWNER, its successors, assigns, vendors, grantees, and/or trustees do hereby agree to fully indemnify, protect and hold CITY harmless from all third-party claims, suits, judgments, and demands, including its reasonable attorney's fees, arising out of the sole or concurrent negligence of OWNER, and only to the extent or percentage attributable to OWNER, in the subdividing, development, or construction of public improvements, including the negligent maintenance thereof. OWNER shall not be responsible for or be required to indemnify CITY from CITY'S own negligence. The indemnity contained in this Paragraph shall expire five (5) years from the date of final acceptance of each phase of the improvements.

ARTICLE VIII.
Revocation

In the event OWNER fails to comply with any of the provisions of this Agreement, CITY shall be authorized to file this instrument in the records of Collin County as a

Mechanic's Lien against OWNER'S Property; and in the alternative, CITY shall be authorized to levy an assessment against OWNER'S Property for public improvements to be held as a tax lien against the Property by CITY.

ARTICLE IX.
Assignability

This Agreement shall not be assignable by OWNER without the prior written consent of the CITY, and such consent shall not be unreasonably withheld, conditioned or delayed.

ARTICLE X.
Termination and Release

Upon CITY's final acceptance of the Project that is the subject of this Agreement and satisfactory completion of all other requirements of this Agreement, this Agreement shall terminate.

ARTICLE XI.
General Provisions

A. OWNER hereby relieves CITY of any responsibilities for any inadequacies in the preliminary plans, designs, construction drawings and details, and exhibits prepared by or at the request of DEVELOPER for the purpose of this Agreement.

B. CITY agrees that all coordination required with public and/or private utility agencies to eliminate conflicts between proposed street grades or underground improvements and the improvements only shall be the responsibility of CITY. Likewise, coordination with agencies requiring special conditions (i.e., railroads and the Texas Department of Transportation), if any, shall be the responsibility of the CITY.

CITY OF McKINNEY

DocuSigned by:
By: Paul G. Grimes
1C90412720C4404...
PAUL G. GRIMES
City Manager

Date Signed: 3/15/2022

ATTEST:

DocuSigned by:
Joshua Stevenson
117DB5801FBA4B2...

EMPRESS DRANE
City Secretary
JOSHUA STEVENSON
Deputy City Secretary

APPROVED AS TO FORM:

DocuSigned by:
Jeremy Page
225BB4CD9E3D44A...

MARK S. HOUSER
City Attorney

BRITISH AMERICAN PROPERTIES OF TEXAS, INC., a Texas corporation

By: _____
THOMAS F. NOONS
President

Date Signed: 12-20-2021

PREPARED IN THE OFFICES OF:
BROWN & HOFMEISTER, L.L.P.
740 East Campbell Road, Suite 800
Richardson, Texas 75081
214/747-6100
214/747-6111 Fax

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-7 – General Geology and Soils Statement and Location Restrictions

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment II-7 – General Geology and Soils Statement and Location Restrictions

TABLE OF CONTENTS

these joints have been enhanced by blasting in the quarry rock mining operations. One shallow fault with a vertical displacement of between 3 and 5 feet has been identified in the western high wall of the east (big) quarry pit. It is, however, not unstable, nor has it created unstable conditions during quarrying operations. Adequate design and careful landfill construction activities will ensure safety from any rock falls or sidewall failure.

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-10 – Wetlands

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

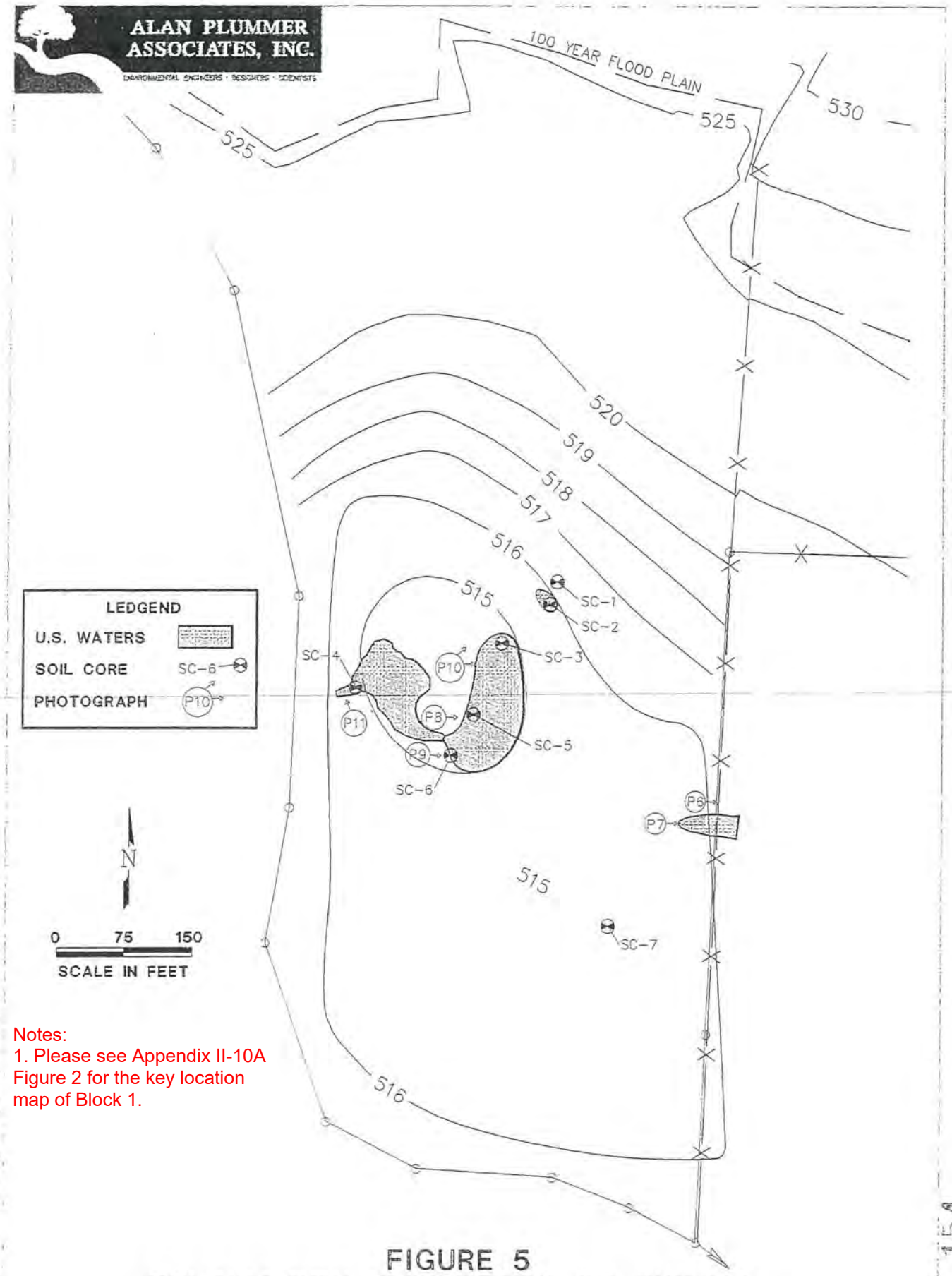
Attachment II-10 – Wetlands

TABLE OF CONTENTS

APPENDICES

APPENDIX II-10A

DELINEATION OF JURSIDICTIONAL WATERS OF THE UNITED STATES AND ADJACENT WETLANDS

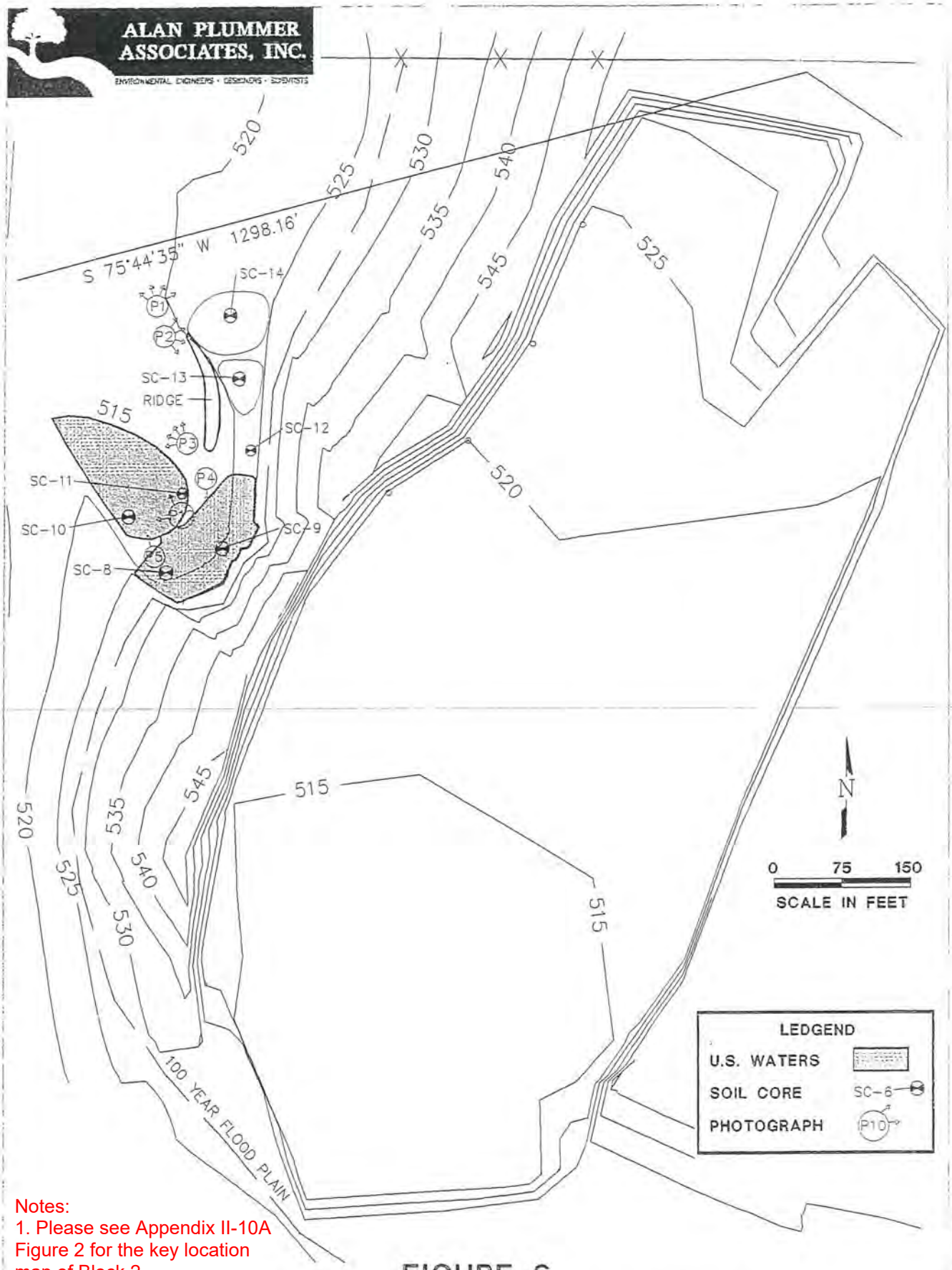


Notes:
1. Please see Appendix II-10A Figure 2 for the key location map of Block 1.

FIGURE 5
DELINEATION OF WATERS OF THE U.S.
BLOCK 1

01/09/98-16:30 F:\users\share\acad\649\0100\FIG-5.dwg GREG

1154



Notes:
1. Please see Appendix II-10A Figure 2 for the key location map of Block 2.

FIGURE 6
DELINEATION OF WATERS OF THE U.S.
BLOCK 2

01/09/98-16:30 F:\users\share\acad\649\0100\FIG-5.dwg GREG

1 155

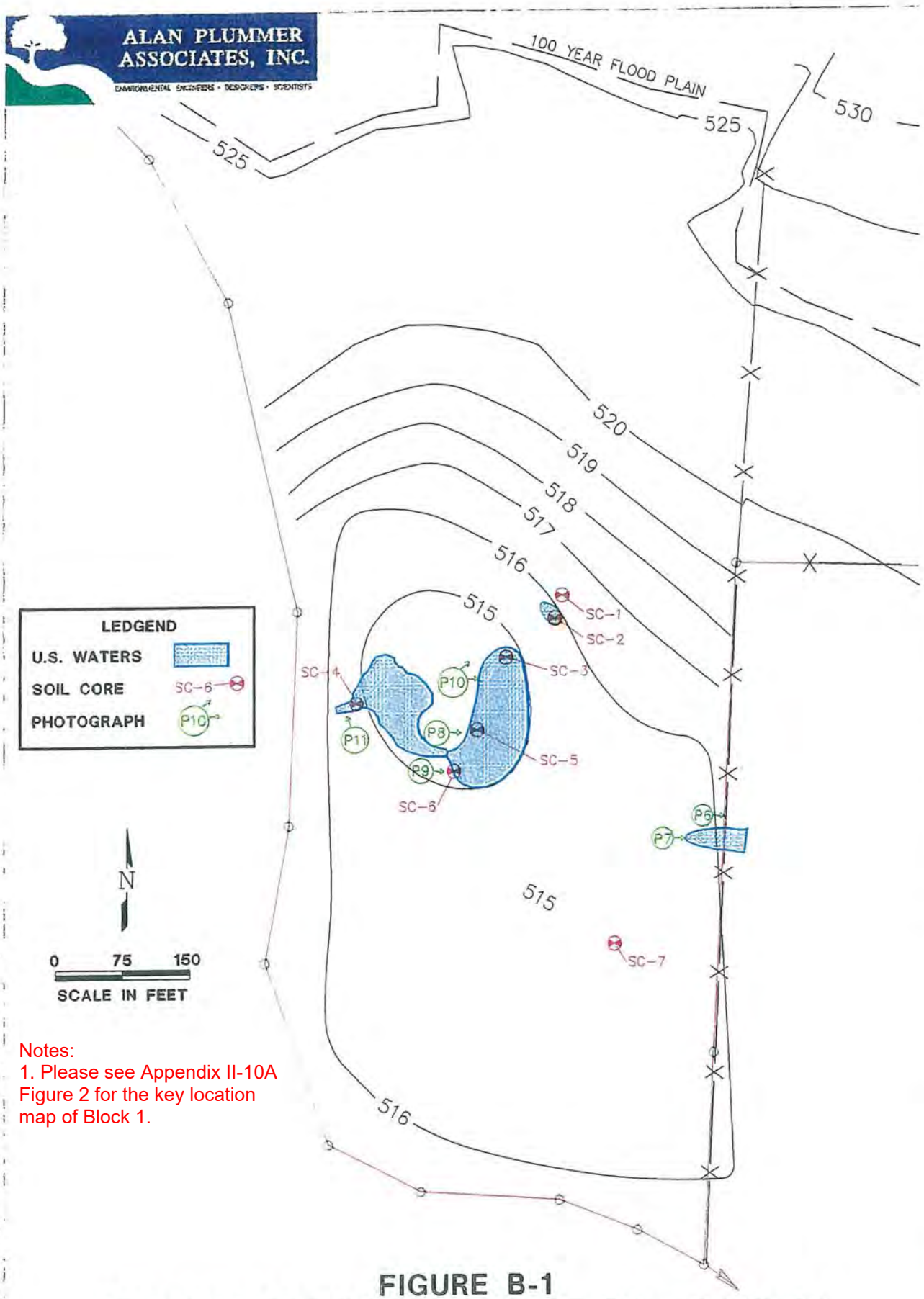
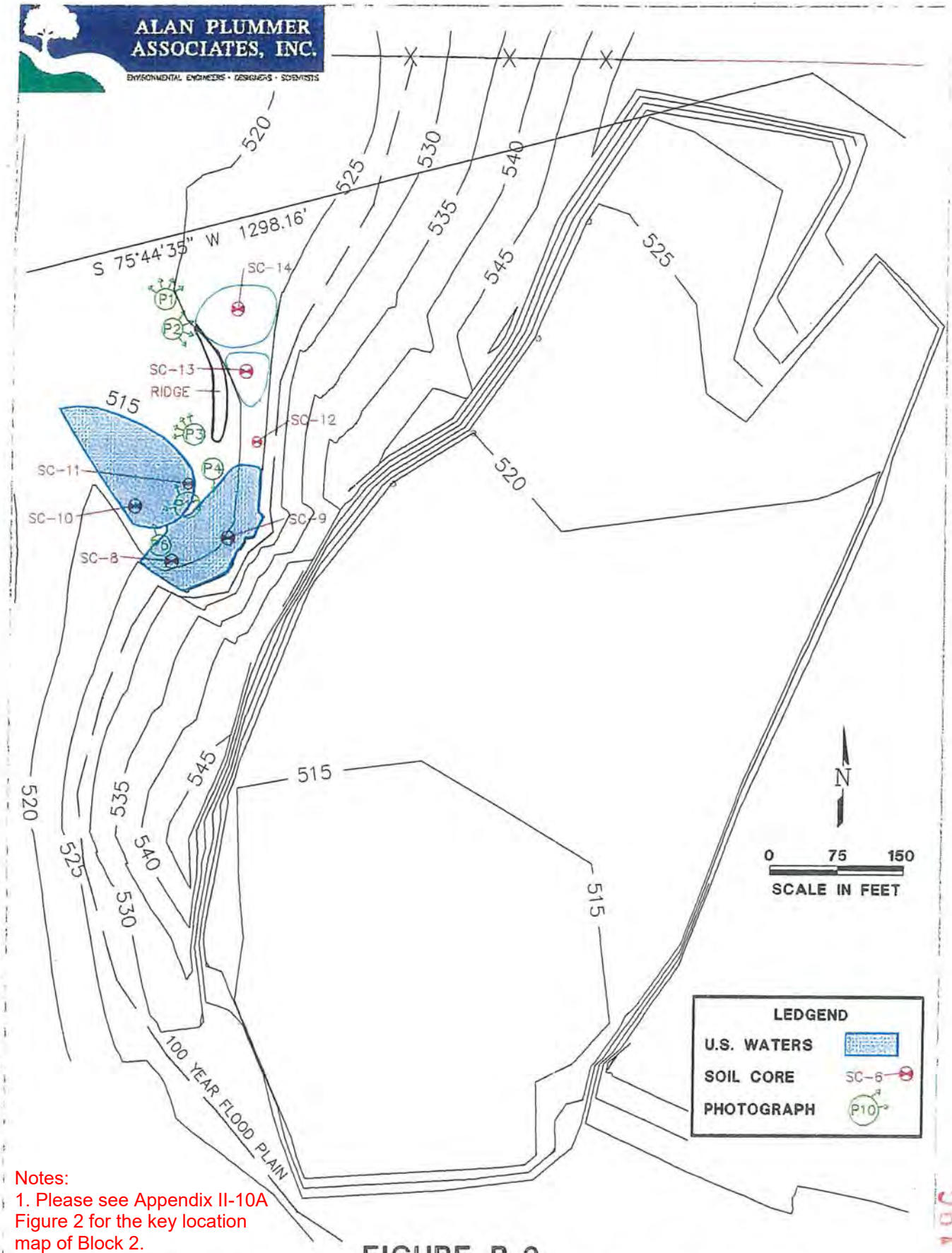


FIGURE B-1
APPROXIMATE LOCATIONS OF SOIL CORINGS AND REPRESENTATIVE PHOTOGRAPHS

01/09/98-16:30 F:\users\share\acad\649\0100\FIG-5.dwg GREG



Notes:
1. Please see Appendix II-10A Figure 2 for the key location map of Block 2.

01/09/98-16:30 F:\users\share\acad\649\0100\FIG-5.dwg GREG

FIGURE B-2
APPROXIMATE LOCATIONS OF SOIL CORINGS AND REPRESENTATIVE PHOTOGRAPHS

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment II-12 – Texas Historical Commission Review

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Parkhill

September 23, 2021

Mr. Mark Wolfe, Executive Director
Texas Historical Commission
P.O Box 12276
Austin, Texas 78711-2276

Re: Construction Recycling and Waste Corporation (CRWC) Type IV Landfill, Collin County
Permit Amendment Application
Municipal Solid Waste (MSW) Permit No. 2278A

Dear Mr. Wolfe:

Construction Recycling and Waste Corporation (CRWC) has retained the services of Parkhill to prepare a Permit Amendment Application to the Texas Commission on Environmental Quality (TCEQ) for CRWC Type IV Landfill. The landfill is located on an approximately 147-acre site along U.S. 380, in McKinney, Texas. The landfill is an existing, active, permitted site, and the changes proposed under the amendment application do not include incorporating additional area into the waste disposal footprint of the landfill.

In accordance with TCEQ requirements, the applicant requests a review by the Texas Historical Commission to determine if the project falls under Title 30 of the Texas Administrative Code, paragraph 330.61(o) for compliance with Natural Resource Code, Chapter 191, Antiquities Code of Texas. Please note this site is currently operating as a Type IV landfill facility and was previously disturbed by limestone quarrying. Additionally, the Texas Historical Commission previously had no objection to the original permitting and construction of this facility. We recommend Osttend Landfill, Ltd be allowed to proceed with the permit amendment. We request that the Texas Historical Commission concur with our recommendation.

Please contact me directly at fpugsley@parkhill.com or 469-200-7384 for any questions.

Sincerely,

PARKHILL

By Frank E Pugsley, P.E.
Frank E. Pugsley, PE
Senior Associate | Team Leader

Enclosure: General Location Map

Cc: Tom Noons, Osttend Landfill
David Dugger, CRWC Landfill
Monica Sowards, CRWC Landfill
Sonia Samir, PE, PhD, Parkhill

Austin Franklin

From: Frank Pugsley
Sent: Friday, December 10, 2021 3:09 PM
To: Austin Franklin; Sonia Samir
Subject: Fwd: Section 106 Submission CRWC THC

Frank Pugsley, PE

Begin forwarded message:

From: noreply@thc.state.tx.us
Date: December 10, 2021 at 2:55:28 PM CST
To: Frank Pugsley <Fpugsley@parkhill.com>, reviews@thc.state.tx.us, matthew.udenenwu@tceq.texas.gov
Subject: Section 106 Submission

TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under the Antiquities Code of Texas
THC Tracking #202203542
Date: 12/10/2021
Parkhill - Construction Recycling and Waste Corporation (CRWC)

Description: permit amendment -municipal solid waste

Dear Client:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the Executive Director of the Texas Historical Commission (THC), pursuant to review under the Antiquities Code of Texas.

The review staff, led by Arlo McKee, has completed its review and has made the following determinations based on the information submitted for review:

Archeology Comments

- No effect on identified archeological sites or other cultural resources. However, if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: Arlo.McKee@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Mark Wolfe, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

cc: matthew.udenenwu@tceq.texas.gov

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Part III

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01 November 2021

Rev. 02 June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-56

Parkhill Project No.: 016048.21

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment III-2 – General Facility Design

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment III-2 – General Facility Design

TABLE OF CONTENTS

FIGURES

1.2.3. Generalized Construction Details (§330.63(b)(2)(D))

This section includes generalized construction details and considerations for sanitation and water pollution control for the Waste Segregation and Recycling Plant (WSRP) and the Wood Processing Area.

Waste Segregation and Recycling Plant: The WSRP is located on the north parcel of the site, near the site entrance and scale house. The WSRP will be covered, and the area will be used for unloading, segregating, sorting, and stockpiling of recyclables. Non-recyclable materials segregated from received loads may be temporarily stored at the WSRP (for up to 72 hours over the weekend, or when the facility is not in operation). On days when the facility is in operation, at least once per day, non-recyclable materials will be removed from the WSRP and taken to the working face for disposal. The materials accepted at the WSRP are expected to be essentially inert and minimally soluble, however~~.~~, the WSRP will be covered, preventing stormwater from interacting with these materials. It is anticipated that waste processing at the WSRP will not generate any contaminated water, and that any spills will be limited to small incidental spills from visiting vehicles or site equipment. Spill kits with absorbent material will be maintained at the WSRP and deployed to contain and clean any spills. Additionally, it is anticipated that no specific sanitation procedures beyond general good housekeeping will be required for the WSRP.

Wood Processing Area: The Wood Processing Area (to include unloading, grinding/mulching, and stockpiling) may be located on areas of intermediate cover, on undeveloped areas of the site, or at the WSRP. No specific ground preparation or construction is required for the wood processing~~in these~~ area~~s~~. Stockpile sizes may vary depending on the amount of clean wood material received, and the rate at which mulch is used. The mulch will be continuously recycled and reused for site operations, so there is no proposed time limit on storage. The location of the wood processing area may be adjusted based on evolving site conditions. Since these materials are inert, specific stormwater run-on and run-off controls are not proposed.

1.3. Water Pollution Control (§330.63(b)(4))

Any stormwater that has become contaminated by coming into contact with the working face of a landfill cell will not be discharged without the prior approval of the TCEQ. A serious

attempt will always be made to minimize the volume of contaminated surface water through construction of run-on control berms to prevent storm water from coming into contact with solid waste. The rainwater that falls directly on the working face of the waste disposal area will be prevented from commingling~~not be allowed to leave the waste disposal cell or commingle~~ with uncontaminated stormwater runoff by a separating berm. Contaminated water will be collected and disposed of in accordance with Attachment III-7 – Contaminated Water Management Plan~~Pond III is specially designed to receive the contaminated water. The Evaporation Pond (Pond III) has been designed to hold a volume of contaminated water generated by daily rainfall during a 25-year, 24-hour rainfall storm in a working active cell of the landfill. Calculation details are included in Attachment III-6.~~ Uncontaminated water will be directed into the perimeter drainage ditches, then to holding and settlement ponds, and eventually will be conveyed offsite and discharged into the nearby Big Fork Creek and the East Fork Trinity River as natural runoff drainage from the site.

Further discussion of control and disposal of contaminated waters is included in the Contaminated Water Management Plan (Attachment III-7).

1.3.1. Ground Water Protection (§330.331(d))

As described in 30 TAC §330.417(b), a groundwater monitoring system is not required in all cases for Type IV landfills. The installation of a groundwater monitoring system is at the discretion of the TCEQ Executive Director. The current permit for this facility includes an existing groundwater monitoring system, consisting of 11 wells installed in the water-bearing zone to monitor the landfill's impact on the shallow groundwater quality.

Groundwater occurs at this site as shallow, subsurface, perched water, and as deep groundwater. The shallow groundwater occurs in a state within the Quaternary fluvio-lacustrine and residual soil deposits and within the contiguous weathered, jointed and fractured upper sections of the Austin Chalk. This groundwater is subjected to seasonal changes and decrease during the summer months. A 3-foot thick clay liner with additional 1-foot soil cover or GCL with 1-foot of protective soil cover will be constructed on the sidewalls and the landfill bottom. An underdrain system is designed to prevent hydrostatic uplift of the liner system. The underdrain design and ballast analysis is included in the Soil and Liner Quality Control Plan, Attachment III-8. Historically no seepage or leakage has been observed or detected on either the bottom or side walls of the quarry pits.

The deeper groundwater occurs at a depth in excess of 900 feet below the land surface at this site. It occurs in the Woodbine Aquifer. From the top of this Aquifer, there is about 450 feet of dark impervious shale, the Eagle Ford Shale, which acts as an aquitard, a hydraulic barrier and a confining, non-water-bearing, hydrogeologic layer. Above the Eagle Ford Shale is an additional impervious layer, the Austin Chalk, which is over 450-foot thick. The landfill host rock formation will be the top part of this unweathered and impervious Austin Chalk Formation. The Eagle Ford Shale and the Unweathered Austin Chalk provide natural, in-situ liner materials that will protect the groundwater in the uppermost aquifer underneath this site, the Woodbine Aquifer.

According to §330.331(d) the Type IV landfill shall have either a 3-foot clay liner with 1-foot of cover soil or an alternative liner design in accordance with §330.335, for groundwater protection.

1.3.2. Drinking Water Protection (§330.417)

No groundwater, drinking-water supply wells presently exist within a 500-foot radius of the waste disposal area which are completed in the shallow perched groundwater or in the Woodbine Aquifer located more than 500 feet beneath the site. An impervious, in-situ sedimentary geologic stratum known as Eagle Ford Shale is present between the bottom of the Austin Chalk and the top of the Woodbine Aquifer. The nearest source of drinking water is Lake Lavon, 5 miles east of this site. Lake Lavon is a public water supply reservoir. It is the source of raw water supply to the North Texas Municipal Water District Water (NTMWD) Treatment Plant in Wylie, Texas. The treated drinking water serves various communities, including the City of McKinney. The Cities of Princeton, and New Hope are on piped rural water supply lines. Drinking water supply under and in the vicinity of the site will be protected by installing landfill clay liners.

1.4. Endangered Species Protection (§330.63(b)(5))

A study commissioned by CRWC and performed by Alan Plummer Associates, Inc. dated September 25, 1998 in support of the original permit application, determined that the landfill is not likely to adversely affect any federally listed threatened or endangered species, and there are no occurrences of sensitive species in the immediate vicinity of the project area. The Texas Parks and Wildlife Department and the United States Department of the Interior, Fish and Wildlife Service, have determined that there are "no presently known occurrences of

sensitive species in the immediate vicinity of the project area", and that "the proposed project is not likely to adversely affect any federally listed threatened species". The operational footprint of the CRWC Type IV landfill will not change under this permit amendment application, so these determinations are still deemed to be valid.

A copy of this report as well as copies of correspondence with the United States Fish and Wildlife service and the Texas Parks and Wildlife Department have been included in Attachment II-11.

1.5. Facility Surface Water Drainage Report (§330.63(c))

A Facility Surface Water Drainage Report has been prepared for this facility, and is included as Attachment III-6. This report demonstrates that the facility has been designed in accordance with 30 TAC §330.303(a)-(b), and includes

I. Drainage Analyses – 30 TAC §330.63(c)(1)

   A. Drawings showing drainage areas and calculations

   B. Design of all drainage structures within the facility area

   C. Calculations of existing and proposed drainage patterns

   D. Description of hydrologic methods and calculations used to estimate peak flow rates and runoff volumes

II. Flood Control and Analyses – 30 TAC §330.63(c)(2)

   A. Analysis and delineation of the 100-year floodplain

   B. Drawings indicating the location of the floodplain

1.5.1. Impact on Drainage Patterns (§330.305(a)

The landfill as designed does not significantly alter pre-development drainage patterns. The calculations which support this position, and a comparison of the pre-development and post-development conditions are provided in the Facility Surface Water Drainage Report ~~and the Flood Study report~~ (Attachment III-6). The pre-development and post-development drainage patterns are presented in Figures III-6-1~~AT-VI-1-1, A-VI-1-2,~~ and

III-6-2~~AT-VI-2-1~~. ~~This permit amendment only proposed changes below ground and will not alter currently permitted drainage patterns.~~

1.5.2. Design and Construction of Run-On Control System (§330.305(b))

A run-on control system has been designed and will be constructed and maintained to prevent stormwater run-on to the active portion of the landfill during the peak discharge from a 25-year rainfall event. Ditches and diversion berms will be constructed and maintained around the perimeter of the disposal active face area to divert stormwater run-on from a 24-hour duration, 25-year frequency event. Interim ditches will be constructed to divert storm water during construction of landfill phases. These temporary ditches and berms will be removed as Landfilling progresses and the site develops to a point where they are no longer functional. The drainage will be redirected to permanent ditches or additional temporary ditches as appropriate. Run-on control berms will also be constructed at the top of the excavation slopes to prevent run-off from the completed sectors or areas under construction from entering the active area of the landfill. All diversion berms, drainage channels and ditches to control run-on are designed for a 24-hour duration, 25-year frequency storm event. The details of design and drawings are provided in Attachment III-6~~, Facility Surface Water Drainage Report~~.

1.5.3. Design and Construction of Run-Off Control System (§330.305(c))

Storm-water run-off from the landfill site will be controlled by ~~perimeter berms constructed along the perimeter located at the landfill top slope, channel flumes, terraces on the landfill side slopes, shallow~~ ditches constructed along the toe perimeter of the landfill, and two~~several~~ storm-water detention/sedimentation retention basins equipped with outlet structures.

A run-off control system has been designed and will be constructed and maintained to direct stormwater run-off from the landfill. These facilities are designed to protect the site and surrounding areas during the peak discharge from a 25-year-frequency storm event. A permanent, perimeter~~primary~~ drainage ditch will be constructed around the boundary of the waste disposal area to provide a run-off conveyance channel. Sheet flow from some areas of the site will be directed to the perimeter primary ditch by secondary ditches. The primary ditch will then channel the water into East Fork Trinity River.

Any stormwater that has fallen on the active phase site and has come into contact with waste will be handled in accordance with the Contaminated Water Management Plan (Attachment III-7). The uncontaminated storm-water run-off will be directed into the temporary diversion ditch and eventually onto the permanent perimeter ditch. This water will be allowed to accumulate in the holding ponds and after settlement of suspended solids, will be discharged through the weirs and culverts.

~~Terraces and hydraulic flumes will be constructed on the side slopes of the landfill cover to minimize erosion and divert stormwater to the perimeter ditches. The stormwater flumes will be made of constructed concrete, rip rap and geotextile lined channels, and pipes.~~

ThreeFour storm-water detention basins, as shown in Attachment III-6, will be constructed with a freeboard greater than one foot, to control excess runoff that may impact a hydraulic structure downstream of this landfill. All run-off control systems (culverts, control berms, perimeter ditches, flumes, terraces, outfalls) are designed for peak discharge from a 24-hour duration, 25-year frequency storm event. The peak discharges for the storm water detention/sedimentation retention basin are designed based on a 25-year frequency, 24-hour duration storm flood event. Soil erosion control and sediment erosion and loss have been determined by using the RevusedModified Universal Soil Loss Equation (RMUSLE) (see Ground and Surface Water Protection Facilities in Attachment III-6).

1.5.4. Surface-Water Protection, Erosion and Soil Loss Management (§330.305(d))

The surface-water drainage plan, design of ditches, construction of landfill side slope terraces and seeding of the areas that have been provided with a top drainage layer in the top cover will create non-erodible velocities, and will minimize soil losses to below permissible levels. The final cover is designed to provide low-maintenance geotechnical stability. Calculations of soil loss have been performed by using the RUSLE guidelines of the USDA Soil Conservation Service - referenced by the TCEQ regulatoryTNRCC technical guidance document. Calculation details are provided in Attachment III-6 Facility Surface Water Drainage Report.

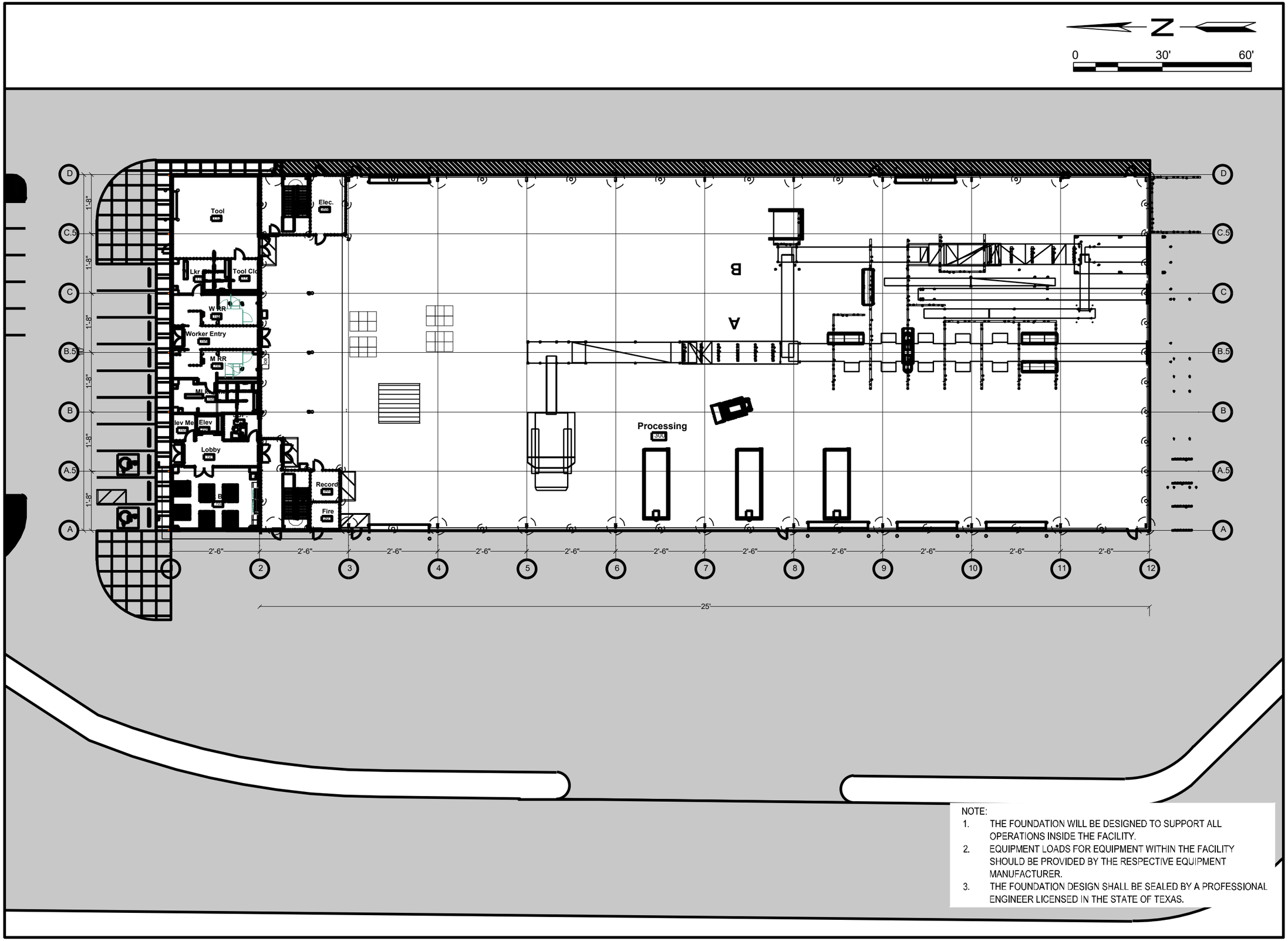
1.5.5. Design of Dikes (Levees), Embankments, Drainage Structures, Channels (§330.305(e) & §330.307)

A small portion of the southwest perimeter of the landfill might be impacted by a 100-year flood event. This part of the landfill is protected by a constructed embankment, and the entire waste footprint is located outside the 100-year floodplain. A Conditional Letter of Map Revision (CLOMR) for this improvement was submitted to FEMA, and the FEMA approval letter is included in Attachment II-9. The design of this embankment is shown in Attachment III-5, Figure III-5.8. Design details of the drainage structures are provided in Attachment III-6, Appendix III-6C~~Figures AT-VI-2-1 to AT-VI-2-5~~. The embankment was designed in accordance with the best available engineering practices and in consideration of 30 TAC §330.305-307 and other applicable state rules. The drainage facilities (drainage ditches, culverts, ponds, diversion berms), cross sectional areas, ditch grades, flow rates, water surface profiles, elevation, velocities, and flow line elevations along the entire length of the ditch and other drainage facilities are provided in detail in Attachment III-6, Appendix III-6C~~Figures AT-VI-1-2 to AT-VI-2-7~~. The drainage hydraulic analyses for these structures were conducted using HEC-HMS~~HEC-I and HEC-2~~ and are described in detail in Attachment III-6~~, Section 2, Ground and Surface Water Protective Facilities~~.

The site drainage plan proposed for this site, when implemented, will be able to protect the landfill from surface-water and flooding.

1.5.6. Drainage Calculation – Areas 200 acres or Less (§330.305(f))

~~The total acreage of this property is 146.79 acres and the landfill is approximately 95 acres. The drainage calculations for this site were performed in two ways, first by using the SCS option of the U.S. Corps of Engineers HEC-1 method. Secondly, the Rational Method was used to verify the results obtained by the HEC-1 method. The details of these calculations are presented in Attachment III-6.~~Refer to Attachment III-6, Section 2.1 for a discussion of the drainage analysis methodology.



NOTE:

1. THE FOUNDATION WILL BE DESIGNED TO SUPPORT ALL OPERATIONS INSIDE THE FACILITY.
2. EQUIPMENT LOADS FOR EQUIPMENT WITHIN THE FACILITY SHOULD BE PROVIDED BY THE RESPECTIVE EQUIPMENT MANUFACTURER.
3. THE FOUNDATION DESIGN SHALL BE SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

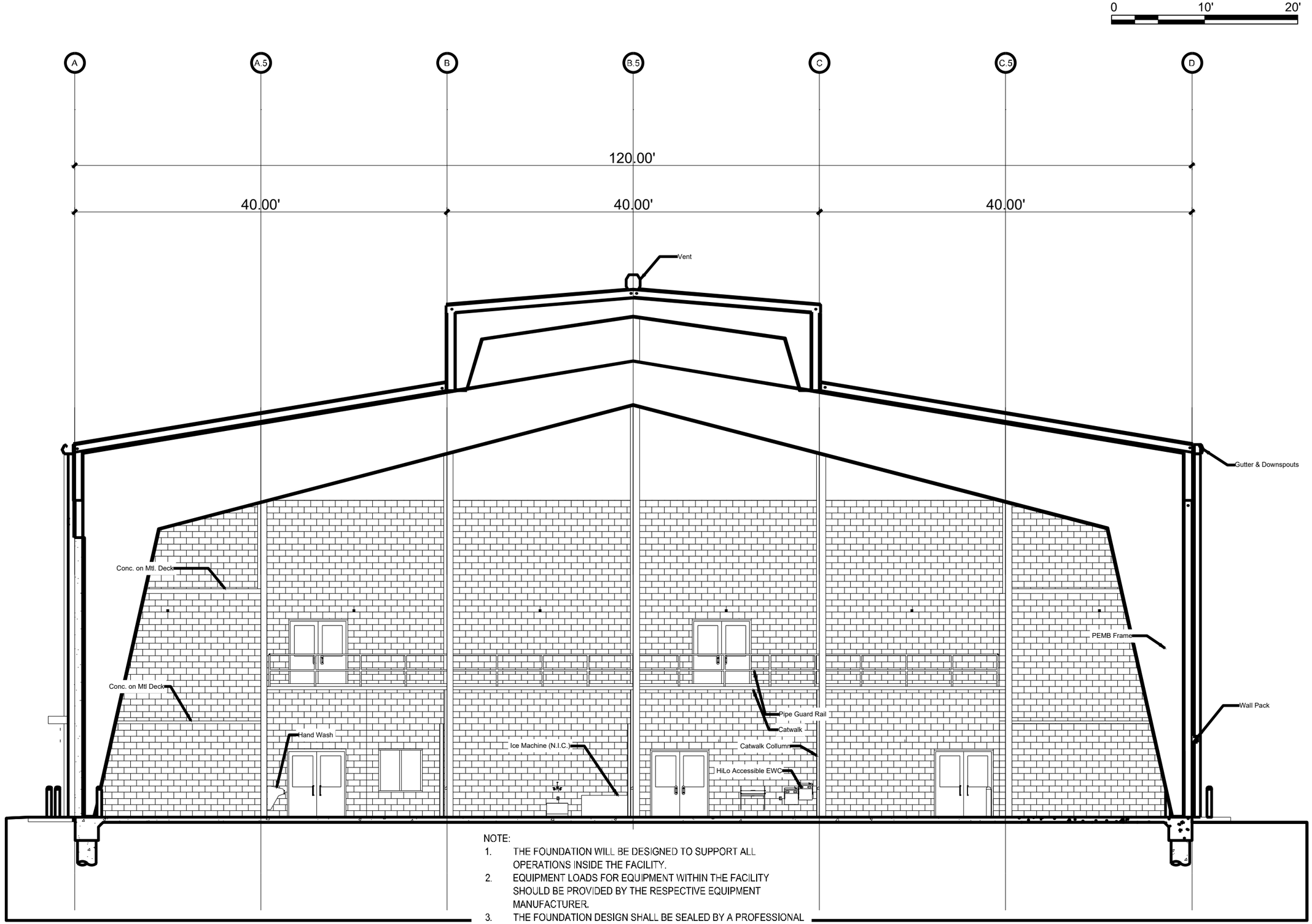
CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION

RECYCLING FACILITY FOUNDATION PLAN

FIG. III-2.2



NOTE:

1. THE FOUNDATION WILL BE DESIGNED TO SUPPORT ALL OPERATIONS INSIDE THE FACILITY.
2. EQUIPMENT LOADS FOR EQUIPMENT WITHIN THE FACILITY SHOULD BE PROVIDED BY THE RESPECTIVE EQUIPMENT MANUFACTURER.
3. THE FOUNDATION DESIGN SHALL BE SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT

Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION

RECYCLING FACILITY CROSS SECTION

FIG.III-2.3

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment III-3 – Waste Management Unit Design

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment III-3 – Waste Management Unit Design

TABLE OF CONTENTS

APPENDICES

disposal area, and a part of it will be designated as the inclement weather disposal site during the operation of Phases I, II, and III of the landfill. The EQP is about 65 feet deep at its northern end and about 50 feet deep at its southern part. It is approximately 1600 feet long.

Phase II will be established in the space between the WQP and EQP, and Phase III will be established in the EQP area. Figures III-4-1A and III-4-1B in Attachment III-4, depict the three phases and their approximate extent.

1.3. Elevations (§330.63(d)(4)(C))

With this permit amendment, the elevation of the deepest excavation is 485 feet above mean sea level (MSL). The maximum elevation of waste will be 651.5 feet MSL. The maximum elevation of the final cover system will be 654 feet MSL.

1.4. Estimated Solid Waste Deposit Rate and Projected Life of Site (§330.63(d)(4)(D))

The landfill will serve a population of approximately 4,940,239. The detailed calculations for solid waste generation are presented in Appendix III-3A to this Attachment. Projected remaining landfill life is approximately 28 years (as of September 2021); this may shorten or lengthen depending on several factors such as increase or decrease in waste source base, changes in population growth rate, industrial growth, growth in municipalities, promotion of recycling, and occurrence of natural catastrophes in the form of tornadoes or widespread floods which may generate a significant amount of solid waste in a short period of time.

The site will operate normally 9 hours a day, six days a week, Monday through Saturday. The Landfill received a total of 222,212 tons of waste in 2020. It is estimated that the landfill facility will receive a daily average of approximately 800 tons throughout its life. The site life and waste deposit rate were estimated based on annual population growth rates presented by the Texas Water Development Board in the 2016 Region C Water Plan, and available historical waste annual waste acceptance data for the site. A summary~~The detailed calculations~~ of projected waste acceptance and remaining airspace, including sample calculations, is~~are~~ provided in Appendix III-3A to this Attachment.

1.5. Landfill Cross-Sections (§330.63(d)(4)(E))

A series of landfill cross-sections with the information required by 30 TAC §330.63(d)(4)(E) are shown in Attachment III-5.

APPENDIX III-3A

Waste Projections

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Parkhill

Appendix III-3A - Waste Projections

~~9/10/2022~~

Estimated Compaction: 1,250 (lb/CY)

Population Growth[A]	Year	Tons per Year	Tons Per Day	Cumulative Tons	Airspace Used (CY)	Airspace Remaining (CY)[B]	Projected Landfill Life (years)
	2019	1,518[C]		1,518	2,429	~~10,345,125~~10,342,696[D]	
1.65%	2020	222,212	609	223,730	355,539	~~9,989,586~~ 9,987,157	
	2021[E]	**225,885**	**619**	**449,615**	**361,416**	**~~13,184,255~~ 13,623,108[F]**	
	2022	229,619	629	679,234	367,390	~~12,816,865~~ 13,255,718	1
	2023	233,415	639	912,649	373,464	~~12,443,401~~ 12,882,254	2
	2024	237,273	650	1,149,922	379,637	~~12,063,764~~ 12,502,617	3
	2025	241,195	661	1,391,117	385,912	~~11,677,852~~ 12,116,705	4
	2026	245,182	672	1,636,299	392,291	~~11,285,561~~ 11,724,414	5
	2027	249,235	683	1,885,534	398,776	~~10,886,785~~ 11,325,638	6
	2028	253,355	694	2,138,889	405,368	~~10,481,417~~ 10,920,270	7
	2029	257,543	706	2,396,432	412,069	~~10,069,348~~ 10,508,201	8
1.90%	2030	262,425	719	2,658,857	419,880	~~9,649,468~~ 10,088,321	9
	2031	267,399	733	2,926,256	427,838	~~9,221,629~~ 9,660,482	10
	2032	272,467	765	3,198,723	435,947	~~8,785,682~~ 9,224,535	11
	2033	277,632	780	3,476,355	444,211	~~8,341,471~~ 8,780,324	12
	2034	282,894	795	3,759,249	452,630	~~7,888,841~~ 8,327,694	13
	2035	288,256	810	4,047,505	461,210	~~7,427,631~~ 7,866,484	14
	2036	293,720	825	4,341,225	469,952	~~6,957,679~~ 7,396,532	15
	2037	299,287	841	4,640,512	478,859	~~6,478,820~~ 6,917,673	16
	2038	304,960	857	4,945,472	487,936	~~5,990,884~~ 6,429,737	17
	2039	310,740	873	5,256,212	497,184	~~5,493,700~~ 5,932,553	18
1.88%	2040	316,574	889	5,572,786	506,518	~~4,987,181~~ 5,426,034	19
	2041	322,518	884	5,895,304	516,029	~~4,471,153~~ 4,910,006	20
	2042	328,574	900	6,223,878	525,718	~~3,945,434~~ 4,384,287	21
	2043	334,743	917	6,558,621	535,589	~~3,409,845~~ 3,848,698	22
	2044	341,028	934	6,899,649	545,645	~~2,864,201~~ 3,303,054	23
	2045	347,431	952	7,247,080	555,890	~~2,308,311~~ 2,747,164	24
	2046	353,954	970	7,601,034	566,326	~~1,741,985~~ 2,180,838	25
	2047	360,600	988	7,961,634	576,960	~~1,165,025~~ 1,603,878	26
	2048	367,371	1,006	8,329,005	587,794	~~577,231~~ 1,016,084	27
	2049	374,269	1,025	8,703,274	598,830	~~0~~ 417,254	28
1.47%	2050	379,776	1,040	9,083,050	417,254	0	29

A. Population growth rate from 2021 Texas Water Development Board Region C Water Plan.

B. Airspace remaining at end of year.

C. Partial year of operation.

D. Total volume permitted in Permit No. 2278 less compacted clay liner volume, final cover volume, intermediate cover volume (assumed to be 10% of total volume), and airspace consumed in 2019.

E. All values after 2020 are projected values.

F. Obtained by adding proposed total waste volume increase (depth and height increase) less geosynthetic clay liner volume, final cover volume, intermediate cover volume (assumed to be 10% of total volume) and ~~projected~~ airspace consumed ~~from~~in 2019 to 2021, to total volume permitted in Permit No. 2278~~remaining airspace from prevous year~~. Proposed total waste volume increase achieved by excavation to grades proposed in Figure III-4.1B, and fill to elevations proposed in Figure III-4.5.

September 2021
Rev.01 November 2021
Rev.02 June 2022

A Sample Calculation - Projected Daily Waste Disposal

Assumption: The daily waste disposal tonnage increases annually at the same rate as the population increase in Collin County.

A.1 - Determine the projected population growth rate for Collin County.

$$P_T = P_0 e^{rt}$$

Where: P_T *is the population after time (t)*
P_0 is the initial population
r is the growth rate (as a percentage)
t is the time

To solve for the growth rate, the equation becomes:

$$r = \frac{\ln \frac{P_T}{P_o}}{t}$$

Using the Collin County populations for 2020 (1,050,506) and 2030 (1,239,303) (as reported and projected by the Texas Development Board in the 2021 Region C Water Plan) the annual growth rate is determined as follows:

$$r = \frac{\ln \frac{1{,}239{,}303}{1{,}050{,}506}}{10} = 1.65\%$$

A.2 - Estimate the projected daily waste disposal rate.

Using the actual tonnage of waste disposed at the landfill in 2020 (222,212), apply the growth rate to estimate the projected daily waste disposal rate for 2021.

$$\frac{222{,}212 \times 1.65\% + 222{,}212}{365} = 619$$

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment III-4 – Site Layout Plan

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01 – November 2021

Rev. 02 – June 2022

Revised by:

Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

Parkhill Project No.: 016048.21

Attachment III-4 – Site Layout Plan

TABLE OF CONTENTS

FIGURES

1. Landfill Layout Plan: Outline of Units, Phases and Fill Sectors

The following maps are designed to present the Site Layout Plan in a logical and progressive manner as is described below. The details and sequence of construction of different components of this landfill are presented in Part II, Appendix II-4A.

1. Figure III-4.5 is the plan view of the completed landfill. From the north, the entrance of the Landfill is shown, which is located on the south side of U.S. Highway 380. Two separate lanes, the Entrance and Exit lanes, each 40 feet wide, connect the main Landfill internal road to the Highway. The gatehouse, landfill receiving and load inspection office are located between these two lanes.

   A parking area and the WSRP, are located at the two sides of a 40-foot-wide concrete surface road, which connects the Landfill Site to the Highway 380.

   A drainage ditch along the length of this 10-acre parcel collects all the surface drainage water for conveyance to Pond IV. This parcel will be screened by trees that will be planted along the property borders. A line of the trees will screen the Landfill Site both on the north and the east.

   The Landfill's final contours will blend with the local topographic relief both on the north and south of the site. The final cover has a side slope of ~~10~~ 25% on all sides, up to an elevation of 640 feet AMSL. At this elevation, the slope reduces to a slope of ~~between 2~~ 6% up to a final elevation level of 669.8~~654~~ feet AMSL.

   ~~The final cover drainage system consists of the terraces built at a horizontal distance of 80 feet, and flumes which will carry the drainage waters to the perimeter ditch.~~ The perimeter ditches route stormwater~~are connected~~ to one of two~~three~~ storm-water ~~r~~detention ponds.

   ~~A contaminated water evaporation pond (Pond III) is located in the northeast corner of the site, and a~~An embankment for protection from a 100-year flood is located in the southwest corner of the site. The flood plain boundary before and after construction are also shown on this map.

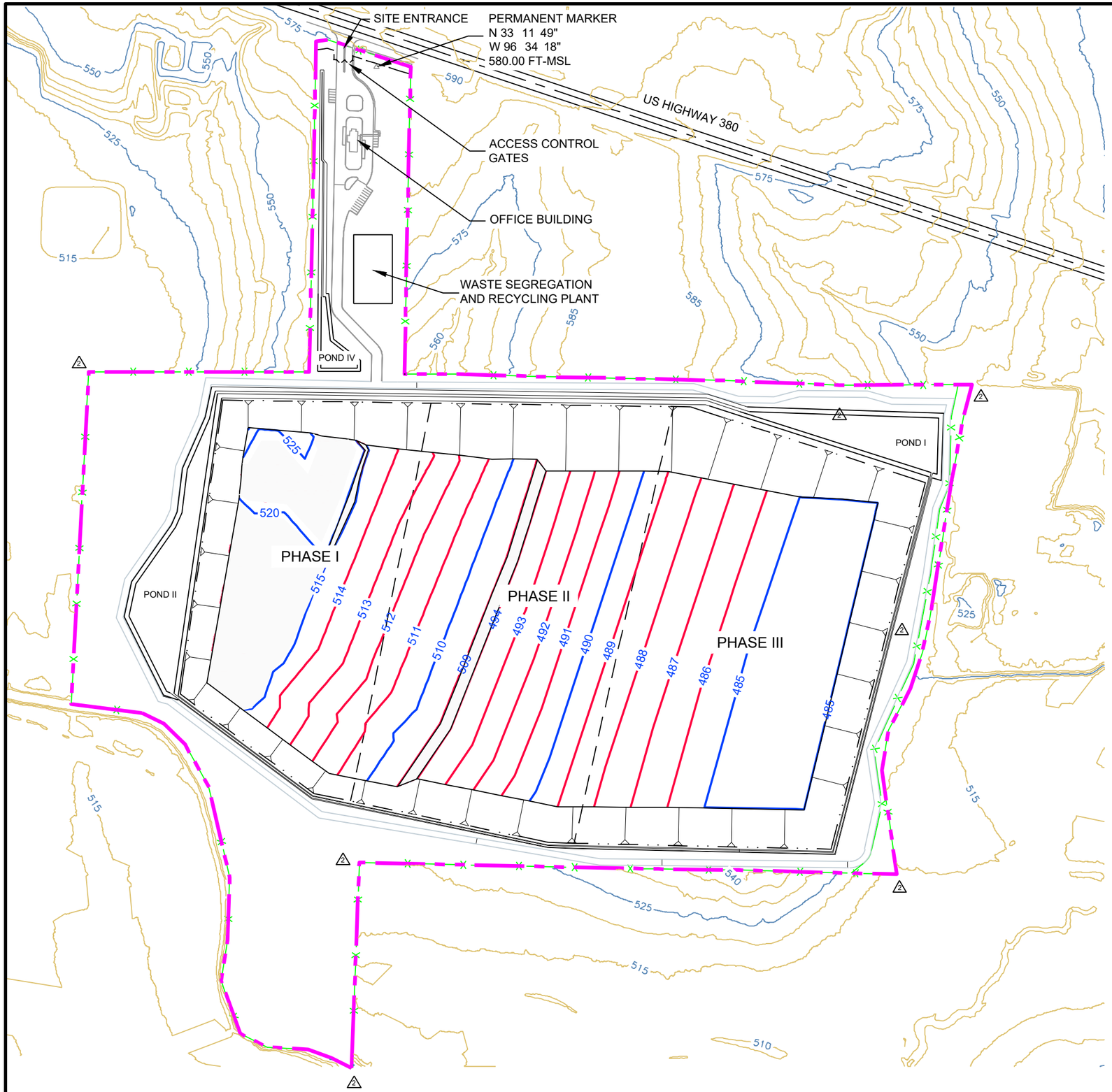
2. Figures III-4.1A and III-4.1B, depict the excavation limits of the Landfill bottom. Subgrade sidewalls will be prepared according to Section 5.2 in the Soil and Liner Quality Control Plan (Attachment III-8).

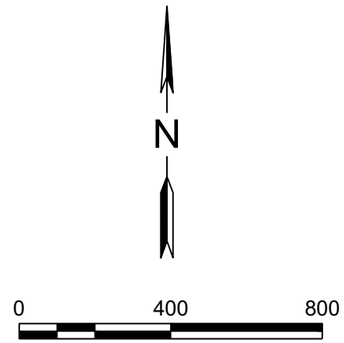
2. Location of Interior Access Roads

The perimeter (interior) roads are placed around the site between the waste footprint and the 50-foot buffer zone. The road design calls for a 24-foot-wide road with 3-foot-wide shoulders on either side. The entrance road to the landfill will be constructed from U.S. Highway 380 and will be connected to the perimeter road. It will be constructed to a width of 40 feet. The details of the road cross sections design and location are shown in Figure III-4.6. The perimeter road may also have temporary turnarounds as necessary.

3. Fence Lines, Natural Windbreaks, Green Belts, and Screening

The proposed landfill facility is set back generally at a distance of over 1000 feet from Highway 380. The existing northern property fence contains shrubs and tall to medium vegetative growth. The vegetative growth provides a natural screen which for the most part hides it from the public view. Trees will be added to the north entrance, along the east and west boundary of the 10-acre area. The green belt, where not existing at present, will be established with a row of trees planted on 3-foot soil berms. The details of this green belt are presented in Figure II-4.1.





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADE ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
2 4. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

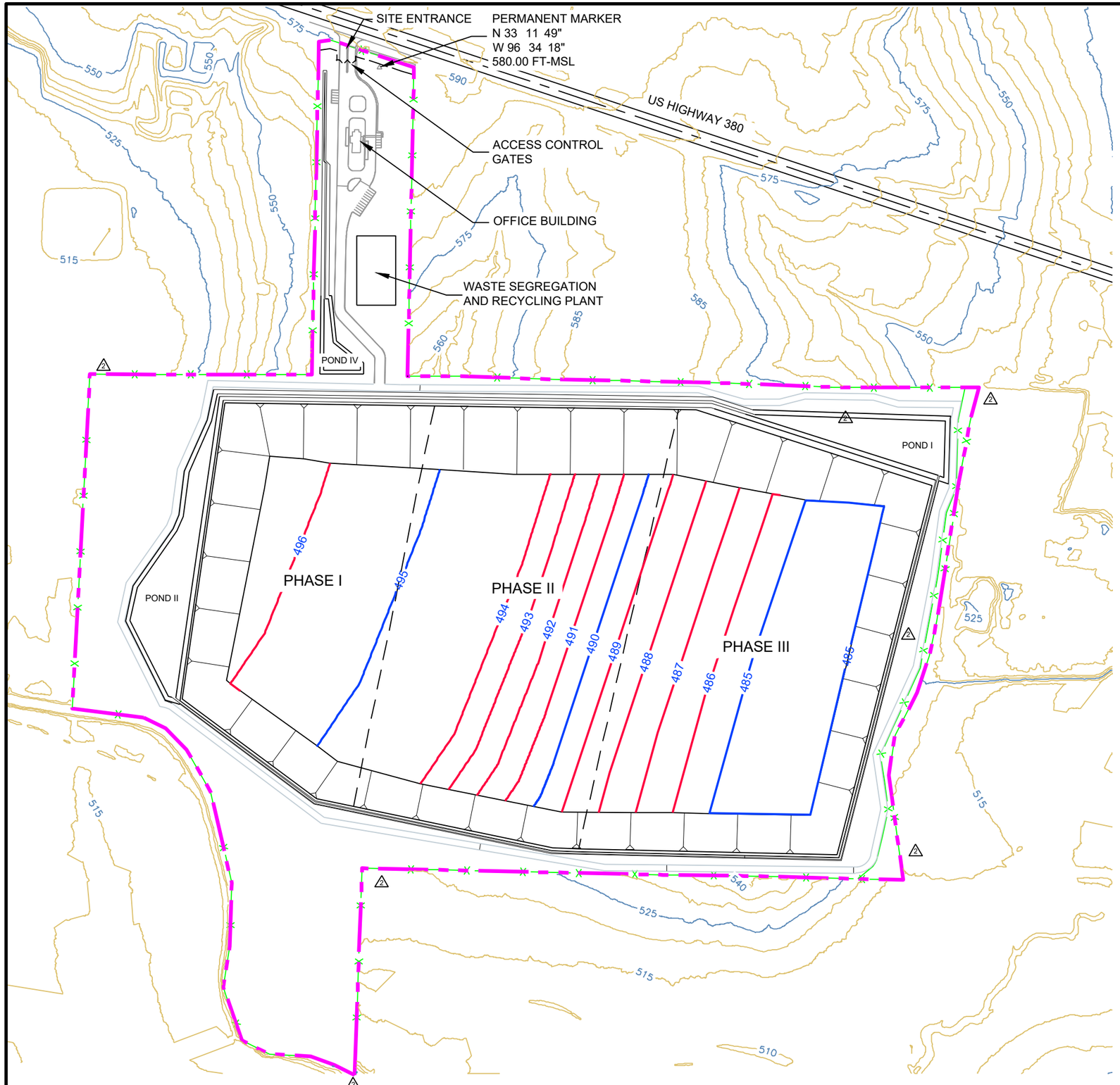
PROJECT NO.
6048.21

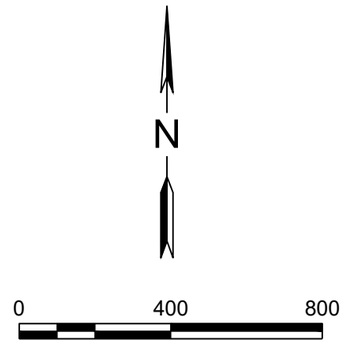
2 June 2022 TECHNICAL NOD #1
DATE DESCRIPTION

Excavation Grades

FIG.III-4.1A

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\PERMIT\6048-21-FIG-III-4.1A.dwg LAYOUT NAME: FIG.III-4.1A PRINTED: Tuesday, June 21, 2022 - 3:41pm USER: afranklin





NOTES / REFERENCE

1. SITE LAYOUT AND AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. ALTERNATE EXCAVATION CONTOURS AS SHOW IN FIGURE AT-I-1-2B ARE ONLY VALID UPON APPROVAL OF MINING OPERATION BY THE TCEQ, IN ACCORDANCE WITH 30 TAC 330 SUB CHAPTER N.

△2 5. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

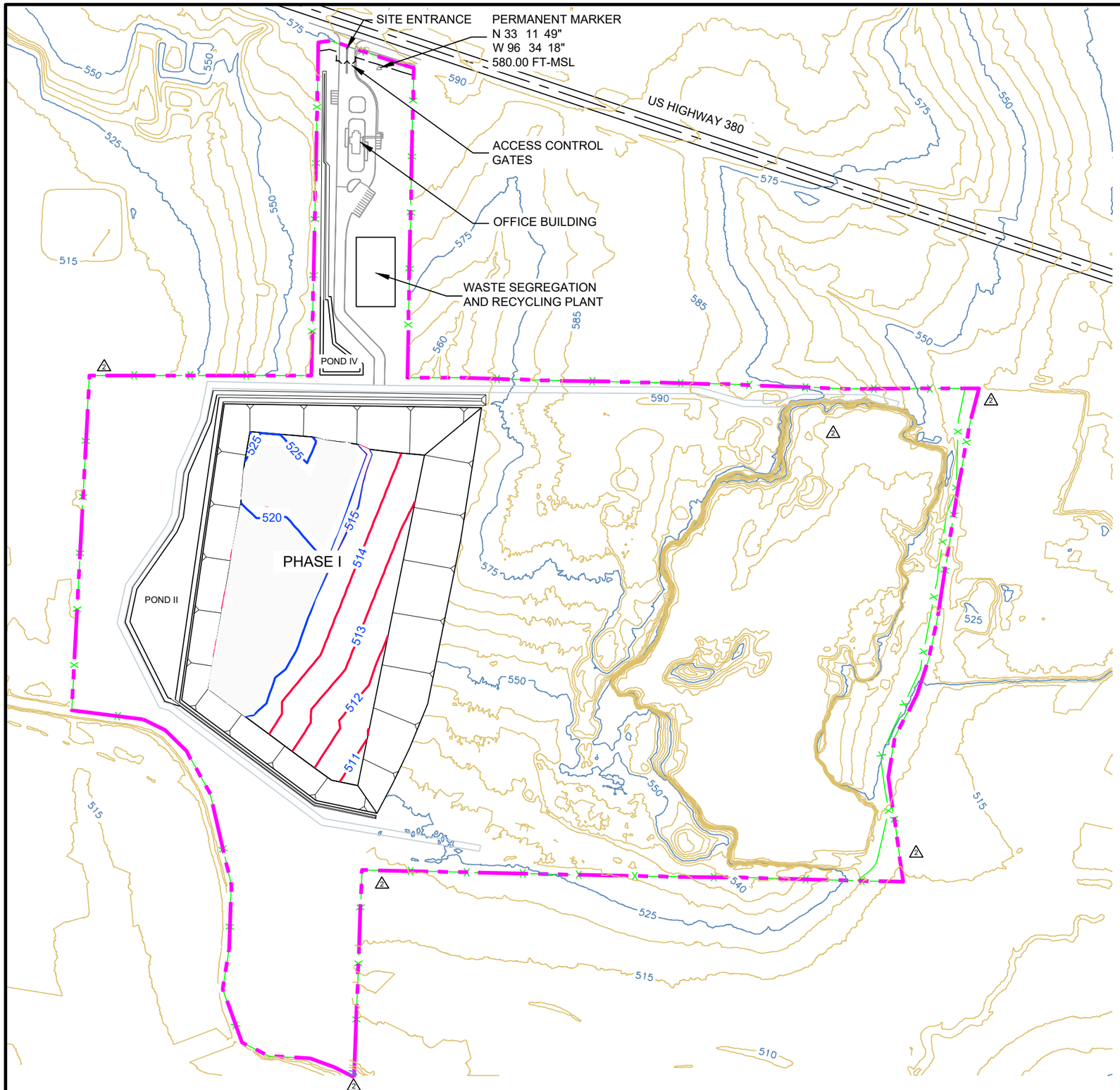
PROJECT NO.
6048.21

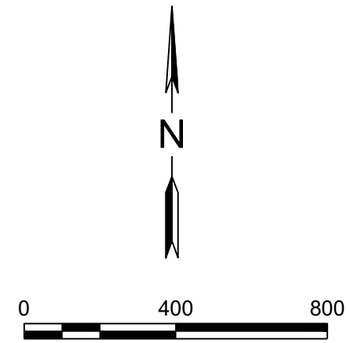
#	DATE	DESCRIPTION
△2	June 2022	TECHNICAL NOD #1

Alternate Excavation Grades

FIG.III-4.1B

FILE NAME: A:\2021\6048.21\02_DSGN\01_DWG\050_CIVIL\PERMIT\6048.21-FIG-III-4.1B.dwg LAYOUT NAME: FIG.III-4.1B PRINTED: Tuesday, June 21, 2022 - 3:59pm USER: afranklin





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. ALTERNATE EXCAVATION CONTOURS AS SHOWN IN FIGURE AT-I-1-2B ARE ONLY VALID UPON APPROVAL OF MINING OPERATION BY THE TCEQ, IN ACCORDANCE WITH 30 TAC 330 SUB CHAPTER N.

△2 5. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

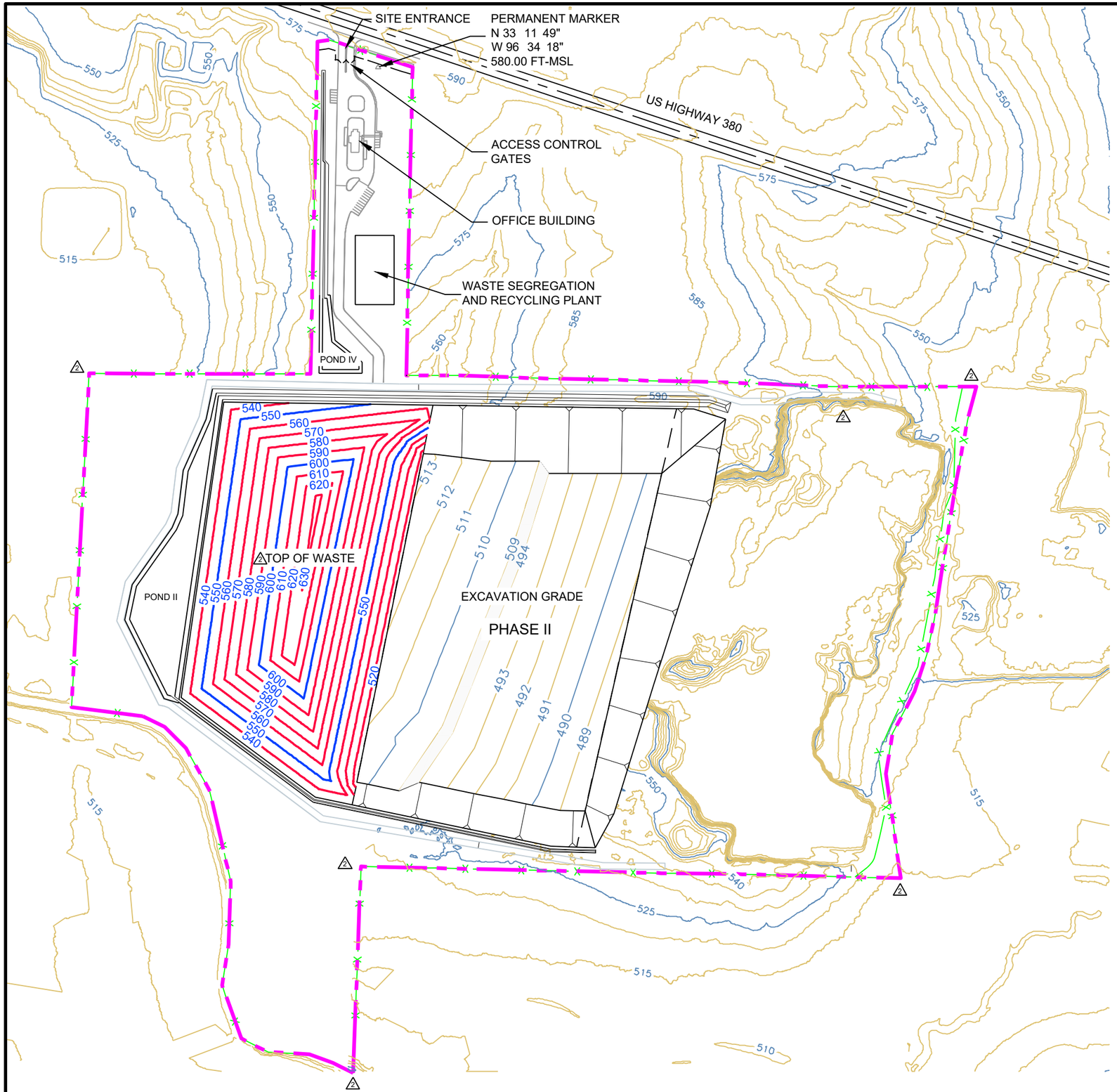
CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

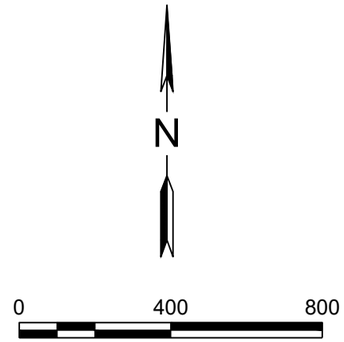
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
△2	June 2022	TECHNICAL NOD #1

Operational Sequence I

FIG.III-4.2





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
4. ALTERNATE EXCAVATION CONTOURS AS SHOW IN FIGURE AT-I-1-2B ARE ONLY VALID UPON APPROVAL OF MINING OPERATION BY THE TCEQ, IN ACCORDANCE WITH 30 TAC 330 SUB CHAPTER N.

△2 5. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

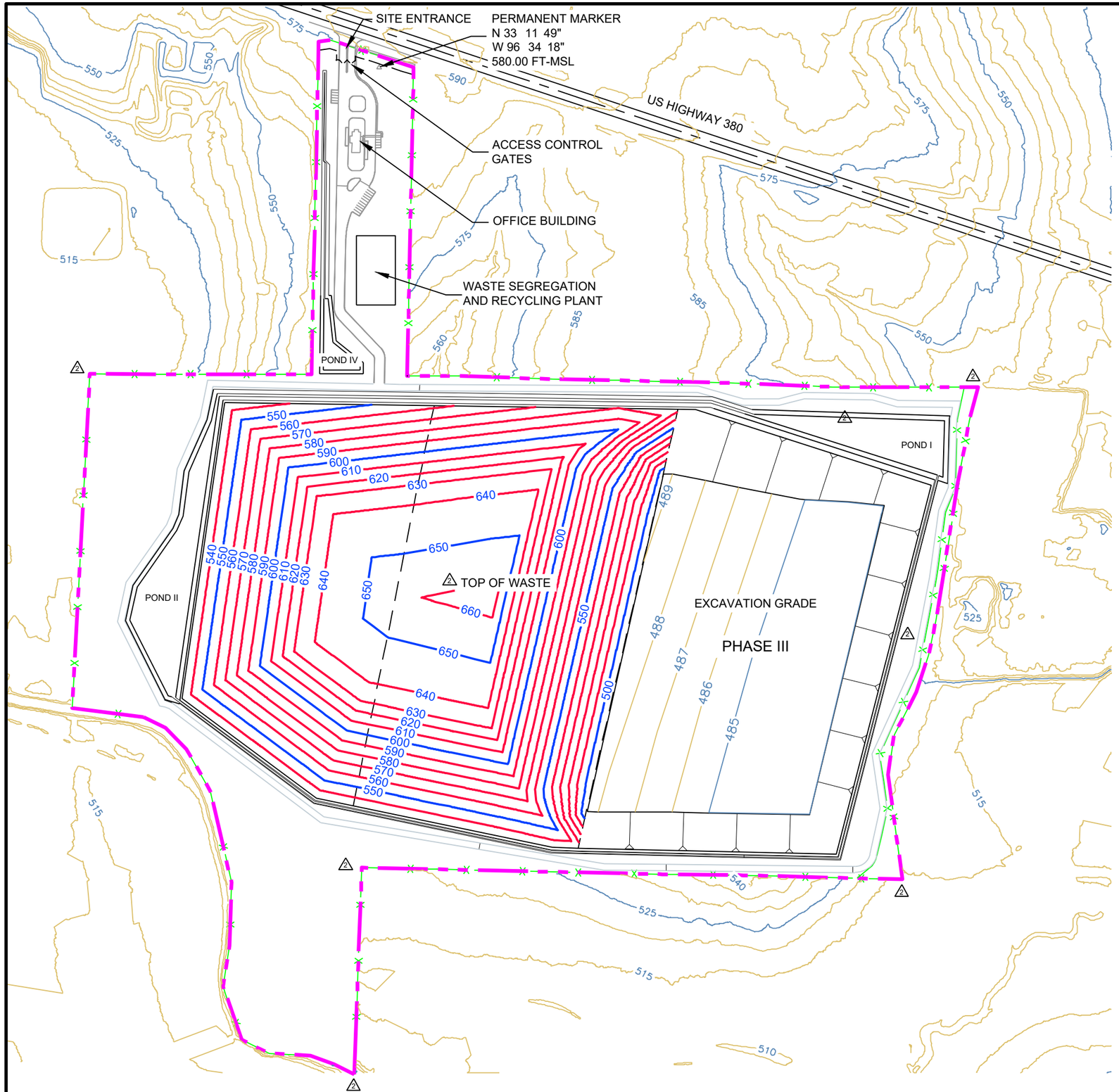
△2 June 2022 TECHNICAL NOD #1

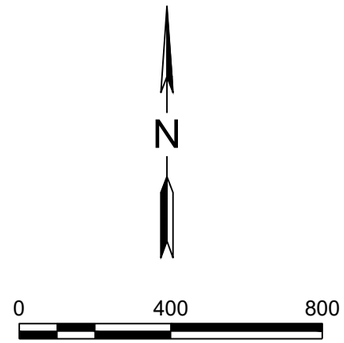
#	DATE	DESCRIPTION

Operational Sequence II

FIG.III-4.3

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\6050_CIVILPERMIT\6048.21-FIG-III-4.3.dwg LAYOUT NAME: FIG.III-4.3 PRINTED: Tuesday, June 21, 2022 - 4:22pm USER: afranklin





NOTES / REFERENCE

1. SITE LAYOUT AND EXCAVATION GRADES ARE RECREATED BY PARKHILL BASED ON MAY 13, 2003 DRAWINGS.
2. ALL BOTTOM CONTOURS REPRESENT EXCAVATION LIMITS.
3. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
△2 4. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

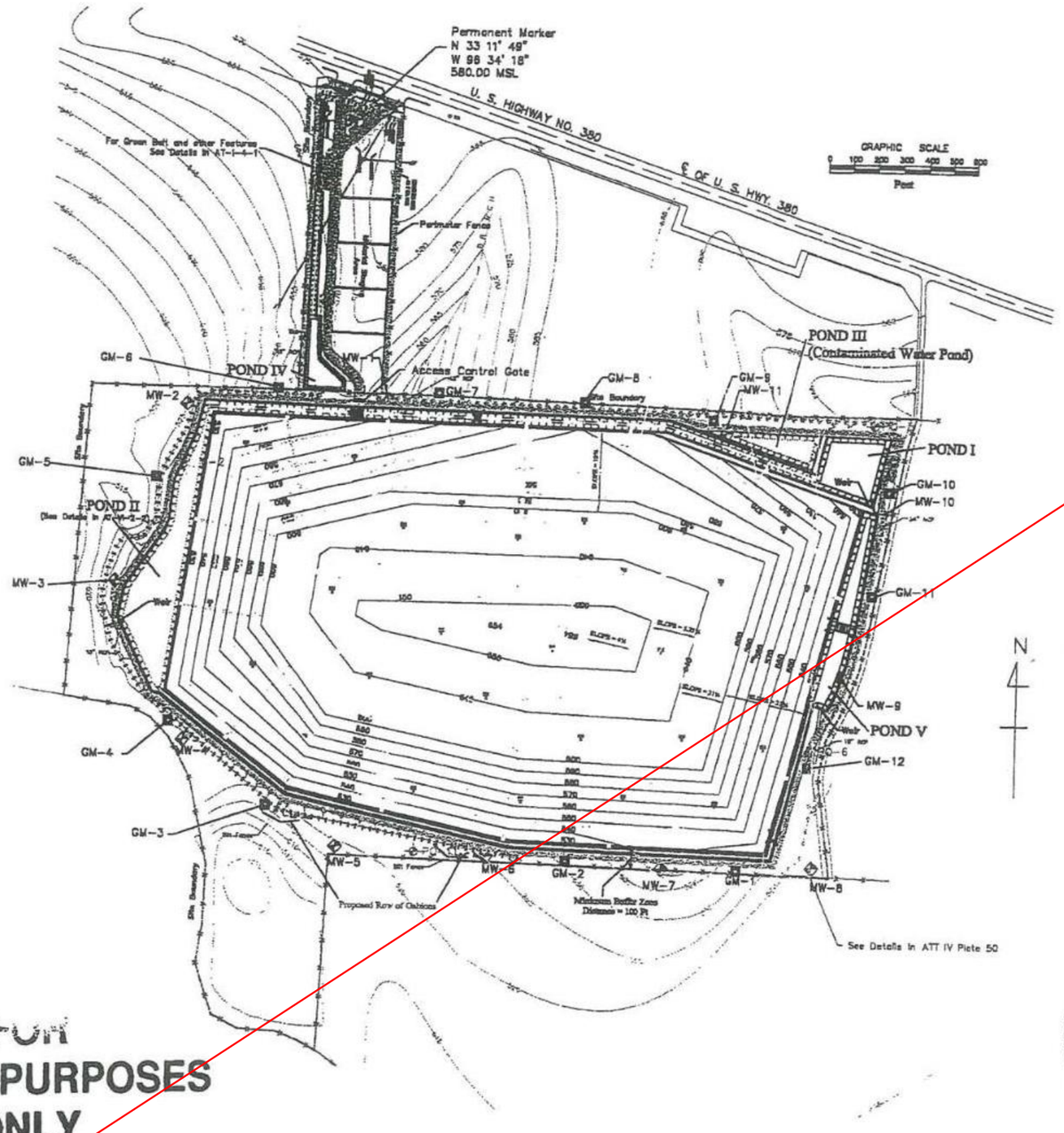
△2 June 2022 TECHNICAL NOD #1
DATE DESCRIPTION

Operational Sequence III

FIG.III-4.4

FILE NAME: A:\2021\6048.21\93_DSGN\01_DWG\050_CIVIL\PERMIT\6048-21-FIG-II-4.4.dwg LAYOUT NAME: FIG.III-4.4 PRINTED: Tuesday, June 21, 2022 - 4:33pm USER: afranklin

(This page replaced by following page)


Permanent Marker
N 33 11' 49"
W 96 34' 18"
580.00 MSL
U. S. HIGHWAY NO. 380
℄ OF U. S. HWY. 380
GRAPHIC SCALE
0 100 200 300 400 500 800
Feet
For Green Belt and other Features See Details in ATT-I-4-1
Perimeter Fence
POND III
(Contaminated Water Pond)
POND IV
POND I
POND II
POND V
Access Control Gate
GM-6
GM-7
GM-8
GM-9
GM-10
GM-11
GM-12
GM-5
GM-4
GM-3
GM-2
GM-1
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
Site Boundary
Weir
Proposed Row of Gabions
Minimum Buffer Zone Distance = 100 Ft
See Details in ATT IV Plate 50
N

LEGEND

- 100 Year Flood Boundary
- Austin Chalk Piezometers
- Bore Holes
- Bridge over the Perimeter Ditch
- Calvert RCP (Reenforced Concrete Pipes)
- Drainage Area Divide
- Drainage Area I.D.
- Boundary Line
- Electrical Pole
- Electrical Pole & Guy Anchor
- Enbankment
- Entrance Greenbelt
- Entrance Road
- Existing Ground Contours
- Existing Monitoring Wells
- Fence
- Final Cover Terraces
- Final Grade Contours
- Final Bottom Excavation Contour
- Flume
- HWY. Row Marker (Concrete)
- HWY. Row Marker (Alum. Cap)
- Iron Pin Set
- Iron Pin Found
- Perimeter Ditch
- Perimeter Green Belt
- Perimeter Road
- Permanent Marker
- Post Construction Flood Boundary
- Proposed Groundwater Monitoring Wells
- Proposed Gas Monitoring Wells
- Proposed Row of Gabions
- Quaternary Deposit Piezometers
- Rock Rip-Rap
- Water Valve
- Water Meter
- Weir
- Gas Vent
- Silt Fence
- Access Control Gate to Disposal Area

FOR PERMIT PURPOSES ONLY

GOLDER ASSOCIATES INC.
Professional Engineering Firm
Registration Number F-2578

STATE OF TEXAS
SOHRAB KOUROSH
56127
REGISTERED PROFESSIONAL ENGINEER
12-20-99

STATE OF TEXAS
XUEMEI XIN
96070
LICENSED PROFESSIONAL ENGINEER
6/18/13
for June 2013 Revisions only

INTENDED FOR PERMITTING PURPOSES ONLY

NOTE:
1. THIS FIGURE WAS ORIGINALLY PREPARED BY TECHNICO ENVIRONMENTAL INC. FOR MSW PERMIT NO. 2278.

Parkhill

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

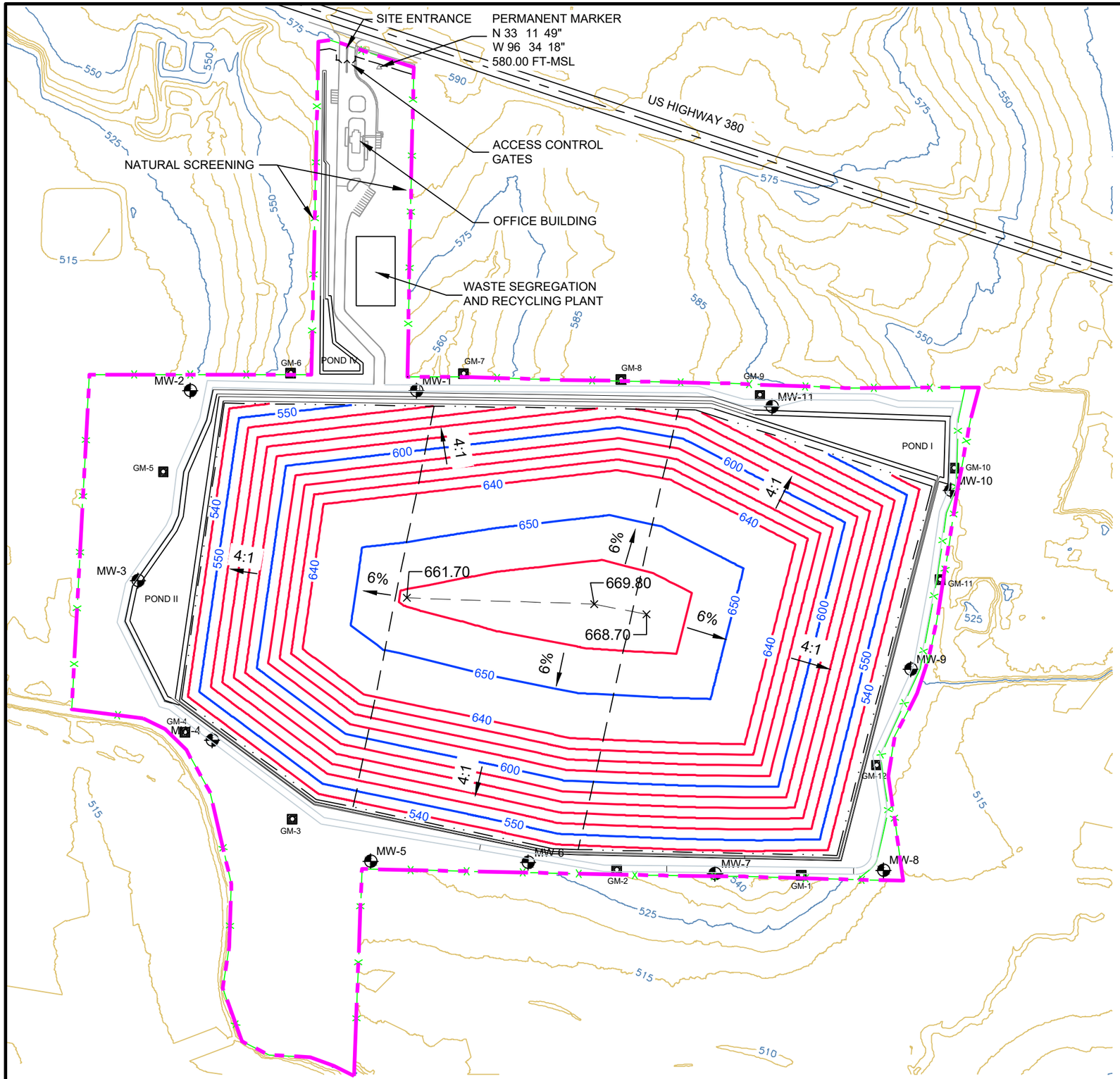
CLIENT
CONSTRUCTION RECYCLING AND WASTE CORPORATION
2540 E. UNIVERSITY DRIVE
MCKINNEY, TEXAS 75069

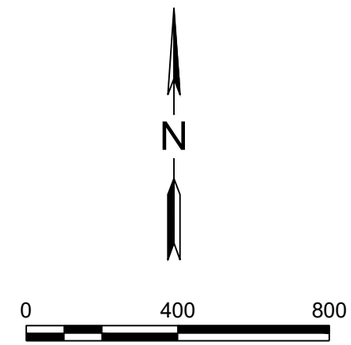
PROJECT NO.
6048.21

#	DATE	DESCRIPTION

SITE LAYOUT PLAN

FIG.III-4.5





NOTES / REFERENCE

1. MAXIMUM EXCAVATION DEPTH IS 485 FT-MSL.
2. THE INTERNAL ROADS WILL BE CONSTRUCTED AT THE OPERATOR'S DISCRETION TO BEST FIT THE OPERATIONS.
3. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.
4. MAXIMUM FINAL COVER ELEVATION 669.80 FT-MSL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES
- MW-1 MONITORING WELLS
- GM-3 GAS MONITORING WELLS

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

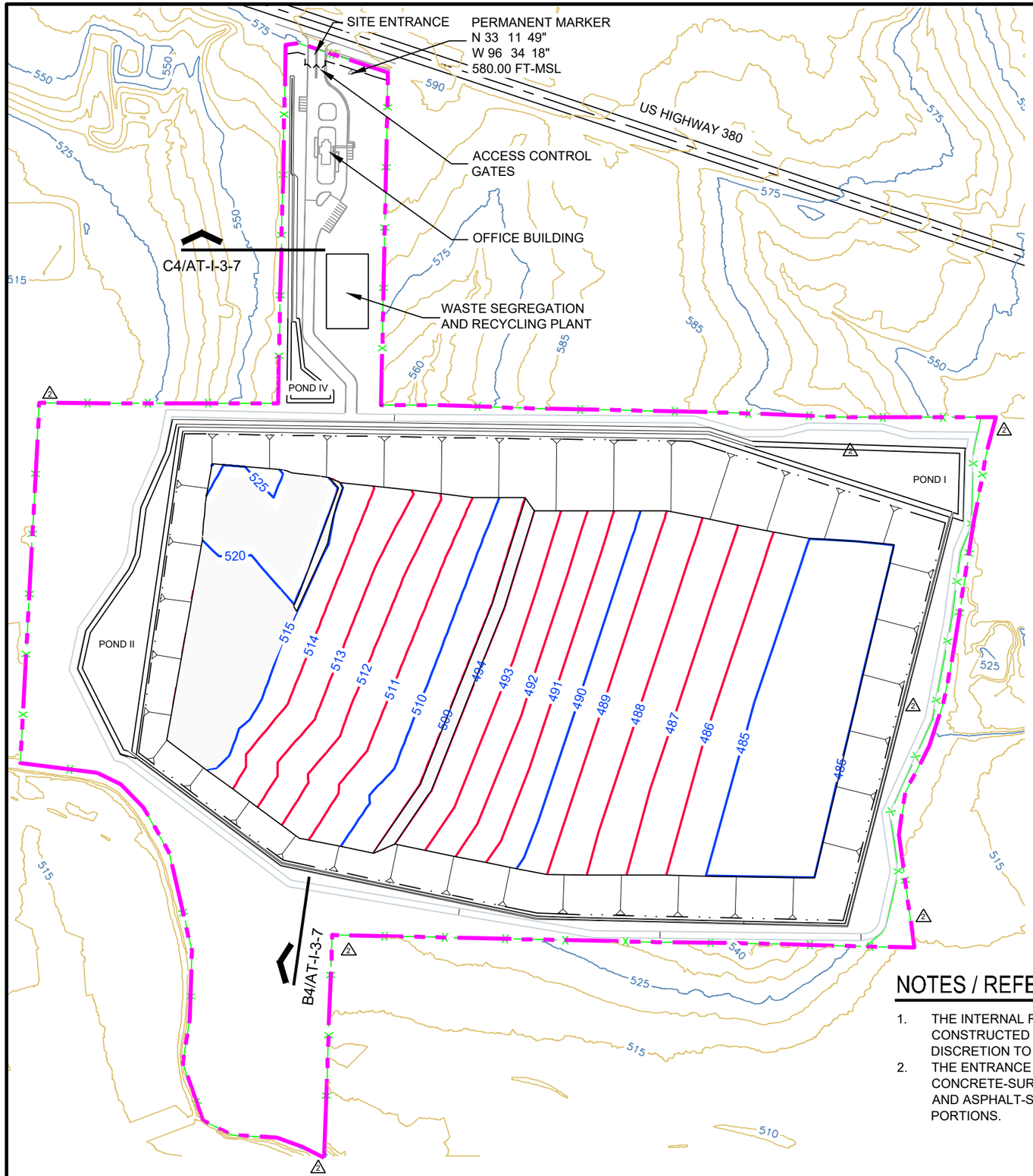
CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

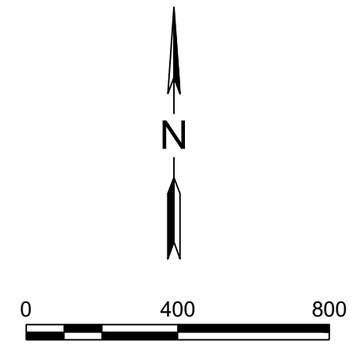
PROJECT NO.
6048.21

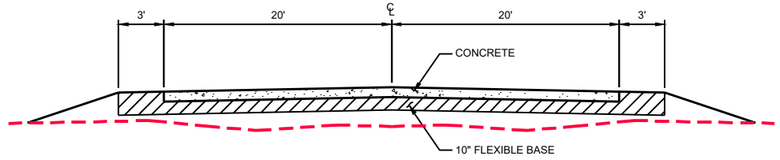
#	DATE	DESCRIPTION

Site Layout Plan

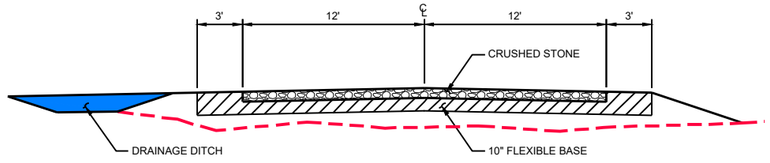
FIG.III-4.5







C4 TYPICAL ENTRANCE ROAD CROSS-SECTION
NOT TO SCALE



B4 TYPICAL PERIMETER ROAD CROSS-SECTION
NOT TO SCALE

NOTES / REFERENCE

1. THE INTERNAL ROADS WILL BE CONSTRUCTED AT THE OPERATOR'S DISCRETION TO BEST FIT THE OPERATIONS.
2. THE ENTRANCE ROAD WILL BE CONCRETE-SURFACED AT THE ENTRANCE AND ASPHALT-SURFACED IN THE REMAINING PORTIONS.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
2	June 2022	TECHNICAL NOD #1

Landfill and Quarry Access Roads During Design Phase I

FIG.III-4.6

CRWC TYPE IV LANDFILL

TCEQ MSW Permit No. 2278A

Collin County, Texas

Attachment III-5 – Landfill Cross-Sections

Prepared for:

Construction Recycling and Waste Corporation

September 2021

Rev. 01: November 2021

Rev. 02: June 2022

Revised by:

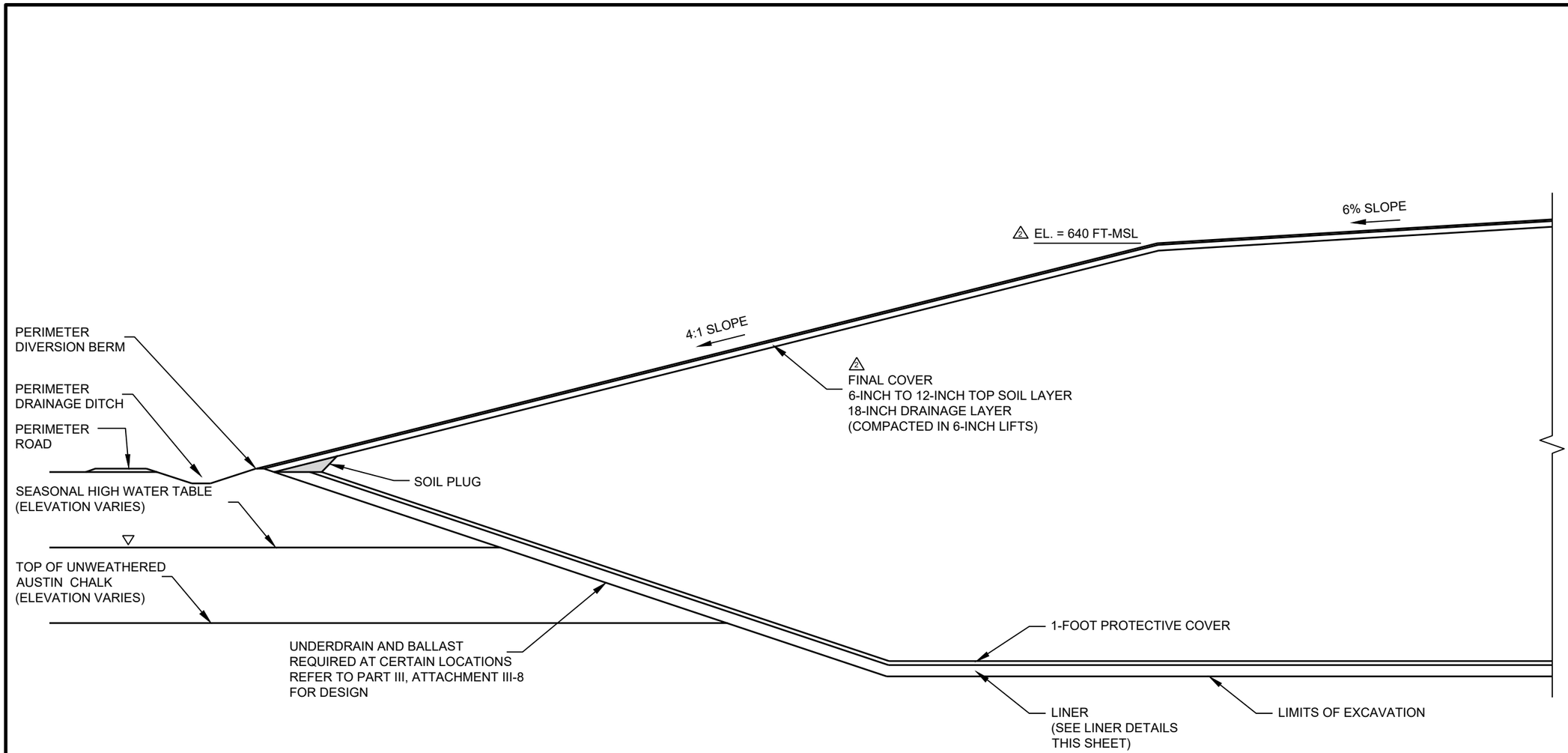
Parkhill
3000 Internet Blvd, Suite 550
Frisco, Texas 75034
TBPE F-560

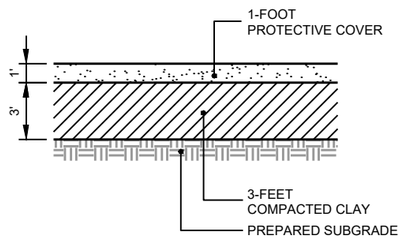
Parkhill Project No.: 016048.21

Attachment III-5 – Landfill Cross-Sections

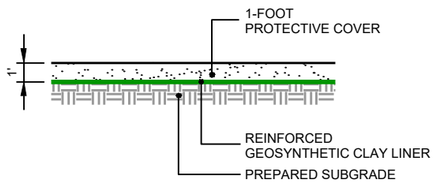
TABLE OF CONTENTS

FIGURES





A1 TYPICAL BOTTOM LINER DETAIL
NOT TO SCALE



A2 ALTERNATE BOTTOM LINER DETAIL
NOT TO SCALE

NOTES / REFERENCE

1. THE CONSTRUCTED LINER SHALL CONSIST OF 3-FEET COMPACTED CLAY WITH 1-FOOT OF PROTECTIVE COVER.
2. THE COMPACTED CLAY LINER SHALL BE CONSTRUCTED USING 6-INCH COMPACTED LIFT THICKNESS.
3. GEOSYNTHETIC CLAY LINER (GCL) WITH A 1-FOOT PROTECTIVE COVER IS AN APPROVED ALTERNATIVE LINER IN ACCORDANCE WITH 330.335, AS DEMONSTRATED IN PART III ATTACHMENT III-8 - SOIL LINER QUALITY CONTROL PLAN (SLQCP).
2 4. THE ALTERNATE LINER SYSTEM WITH GCL AND 1-FOOT PROTECTIVE COVER MAY BE USED IN FUTURE CELL CONSTRUCTIONS FOR PHASE I, II AND III.
2 5. MAXIMUM WASTE ELEVATION 667.30 FT-MSL.

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

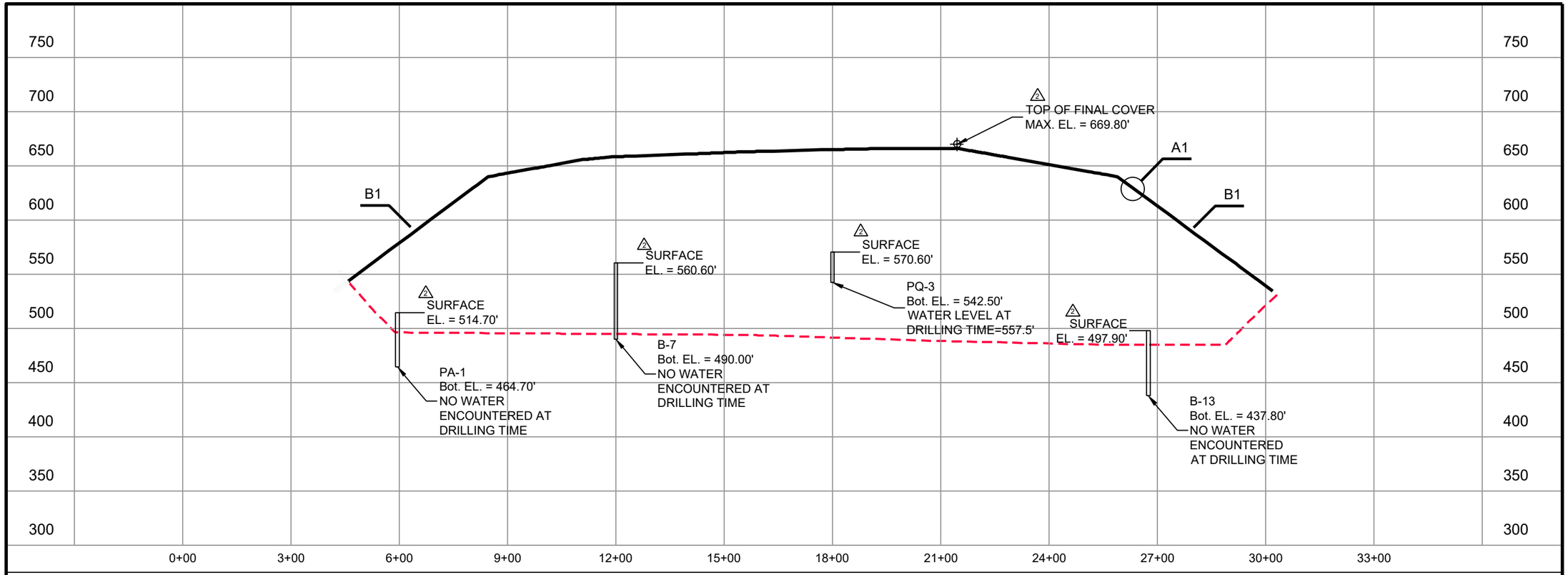
CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

2 June 2022 TECHNICAL NOD #1
DATE DESCRIPTION

Typical Landfill Profile Section

FIG.III-5.1



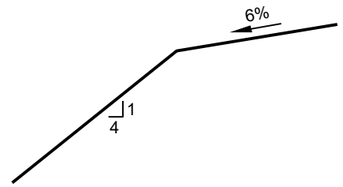
C1 LANDFILL CROSS-SECTION A-A'

1" = 300'

SCALES:

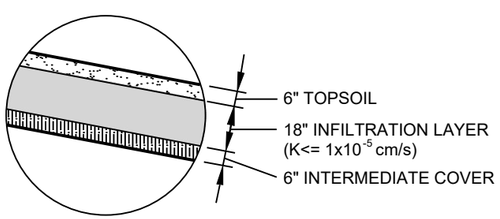
HOR. 0 300 FEET

VER. 0 100 FEET



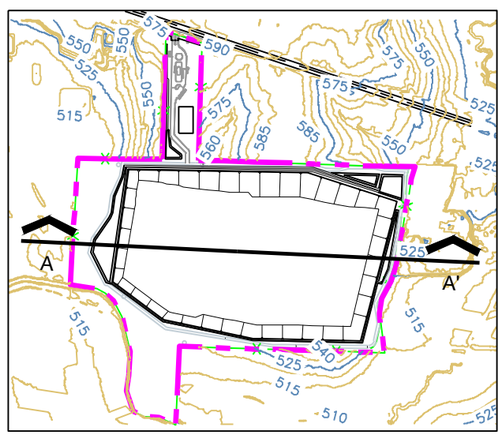
B1 SIDESLOPE ⚠2

NOT TO SCALE



A1 TYPICAL FINAL COVER ⚠2

NOT TO SCALE



KEY MAP

NOTE:

1. EXCAVATION DEPTHS IN THE CROSS-SECTIONS ARE FROM THE ALTERNATE EXCAVATION PLAN TO ILLUSTRATE THE MAXIMUM PERMITTED BOTTOM ELEVATIONS FOR THE LANDFILL.
⚠2 2. ALL ELEVATION VALUES ARE IN FEET ABOVE MEAN SEA LEVEL (FT-MSL).
⚠2 3. DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PERIMETER ROAD
- EXISTING TOPOGRAPHIC CONTOURS
- LIMITS OF EXCAVATION PROFILE
- TOP OF FINAL COVER PROFILE

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

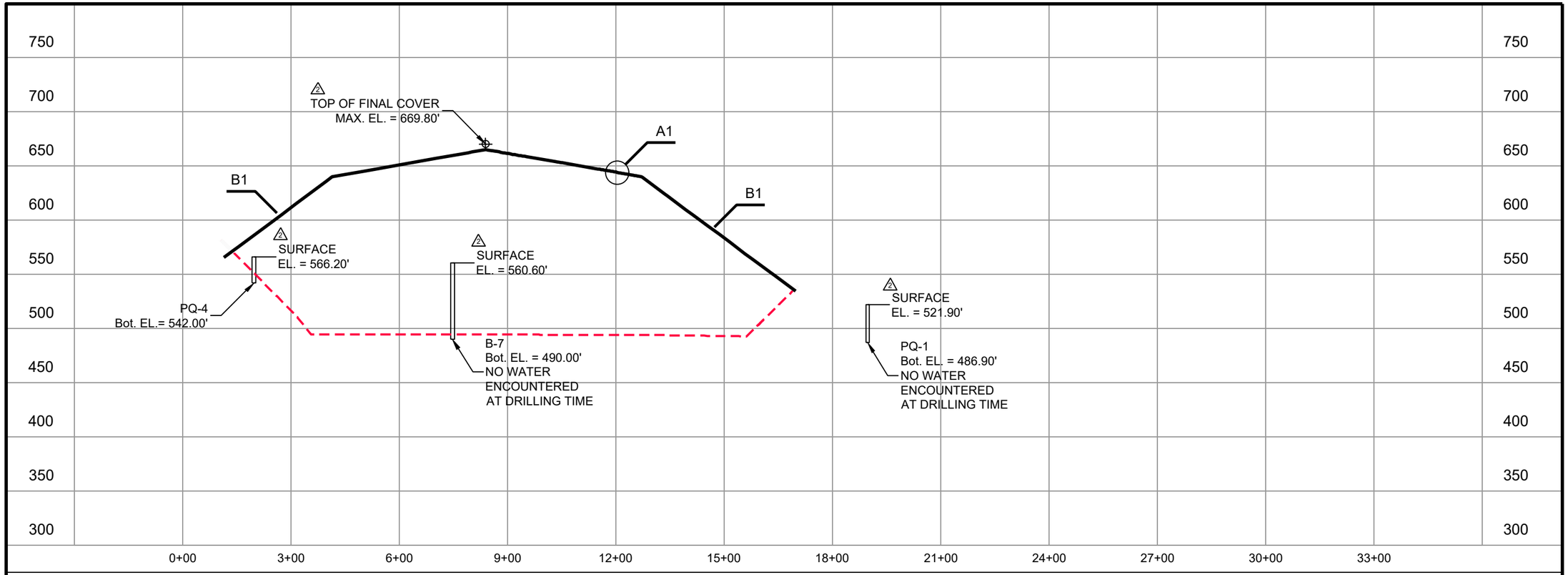
PROJECT NO.
6048.21

#	DATE	DESCRIPTION
⚠2	June 2022	TECHNICAL NOD #1

Cross-Section A-A'

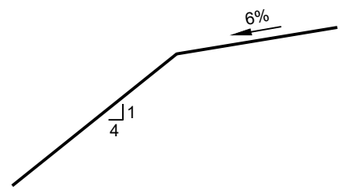
FIG.III-5.4

FILE NAME: A:\2022\6048.21\02_DSGN\01_DWG\050_CIVILPERMIT\6048-21-FIG-III-5.4.dwg LAYOUT NAME: FIG.III-5.4 PRINTED: Tuesday, June 21, 2022 - 8:04pm USER: afranklin



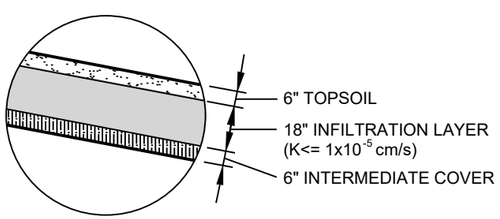
C1 LANDFILL CROSS-SECTION B-B'

1" = 300'



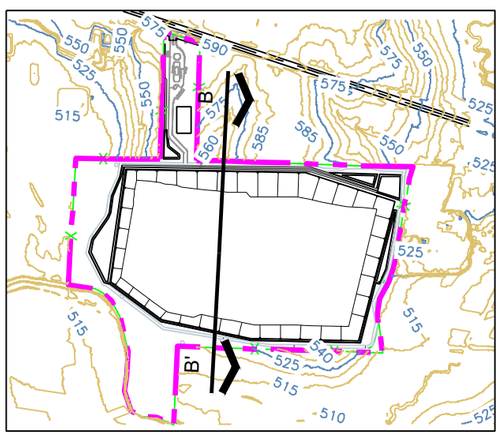
B1 SIDESLOPE △2

NOT TO SCALE



A1 TYPICAL FINAL COVER △2

NOT TO SCALE



KEY MAP

SCALES:

HOR. 0 300 FEET

VER. 0 100 FEET

NOTE:

1. EXCAVATION DEPTHS IN THE CROSS-SECTIONS ARE FROM THE ALTERNATE EXCAVATION PLAN TO ILLUSTRATE THE MAXIMUM PERMITTED BOTTOM ELEVATIONS FOR THE LANDFILL.
△2. 2. ALL ELEVATION VALUES ARE IN FEET ABOVE MEAN SEA LEVEL (FT-MSL).
△2. 3. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- LIMITS OF EXCAVATION PROFILE
- TOP OF FINAL COVER PROFILE

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

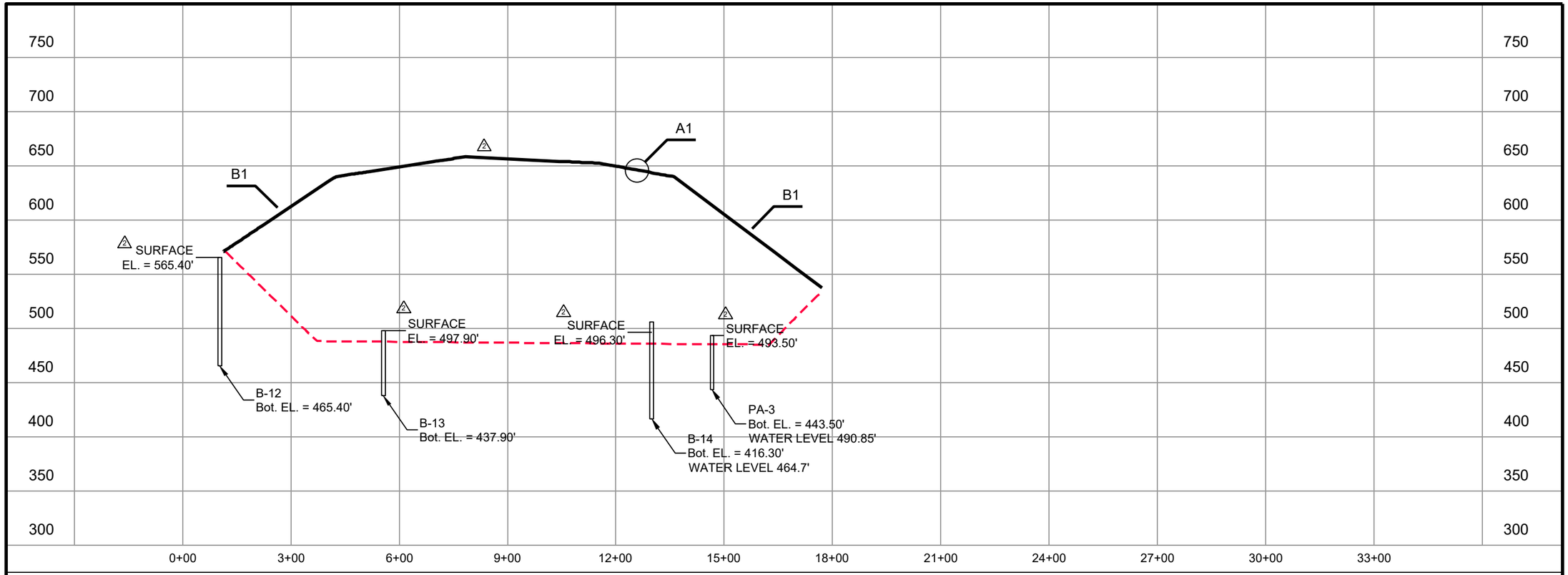
△2 June 2022 TECHNICAL NOD #1

#	DATE	DESCRIPTION

Cross-Section B-B'

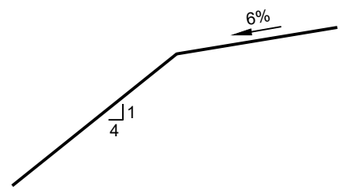
FIG.III-5.5

FILE NAME: A:\2022\6048.21\02_DSGN\01_DWG\050_CIVILPERMIT\6048-21-FIG-III-5.5.dwg LAYOUT NAME: FIG.III-5.5 PRINTED: Tuesday, June 21, 2022 - 8:16pm USER: afranklin



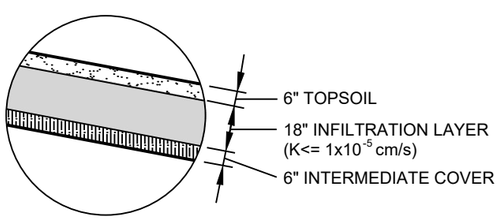
C1 LANDFILL CROSS-SECTION C-C'

1" = 300'



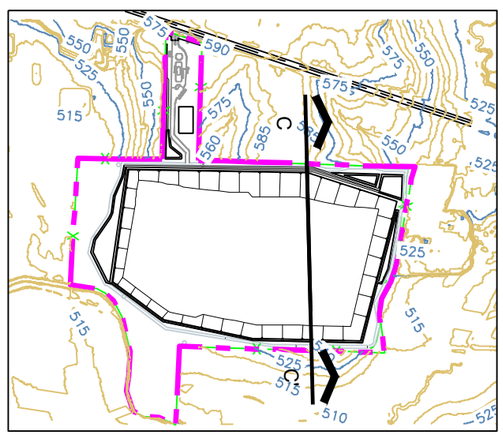
B1 SIDESLOPE △2

NOT TO SCALE



A1 TYPICAL FINAL COVER △2

NOT TO SCALE



KEY MAP

SCALES:

HOR. 0 300 FEET

VER. 0 100 FEET

NOTE:

1. EXCAVATION DEPTHS IN THE CROSS-SECTIONS ARE FROM THE ALTERNATE EXCAVATION PLAN TO ILLUSTRATE THE MAXIMUM PERMITTED BOTTOM ELEVATIONS FOR THE LANDFILL.
△2 2. ALL ELEVATION VALUES ARE IN FEET ABOVE MEAN SEA LEVEL (FT-MSL).
△2 3. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- LIMITS OF EXCAVATION PROFILE
- TOP OF FINAL COVER PROFILE

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A

COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

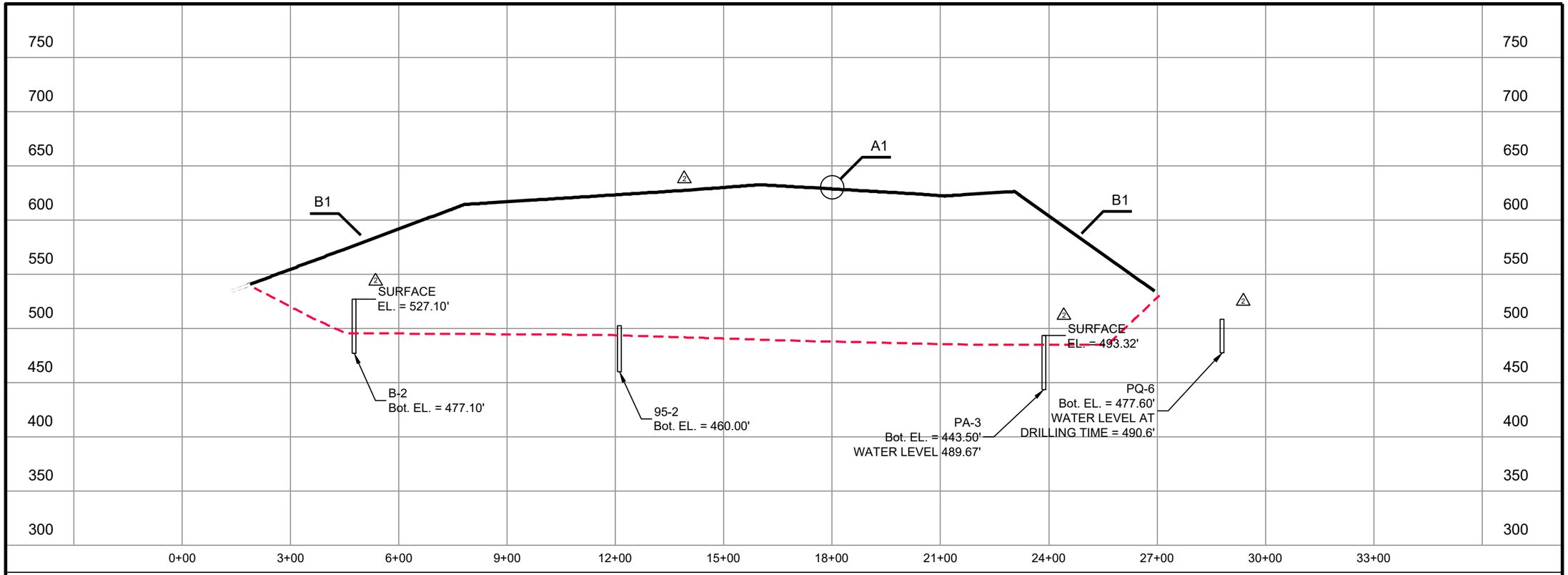
PROJECT NO.
6048.21

△2 June 2022 TECHNICAL NOD #1

#	DATE	DESCRIPTION

Cross-Section C-C'

FIG.III-5.6



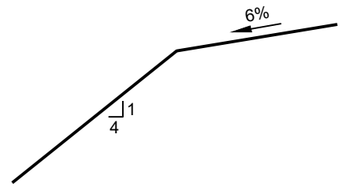
C1 LANDFILL CROSS-SECTION D-E-E'

1" = 300'

SCALES:

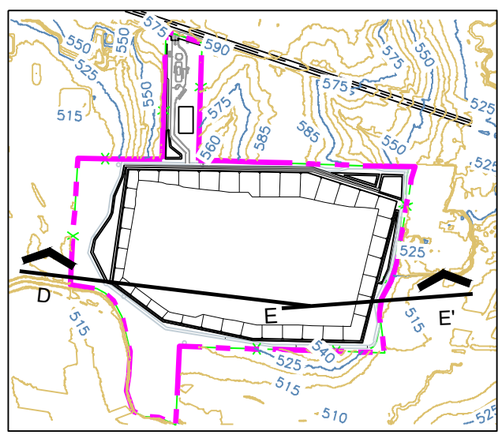
HOR. 0 300 FEET

VER. 0 100 FEET



B1 SIDESLOPE △2

NOT TO SCALE



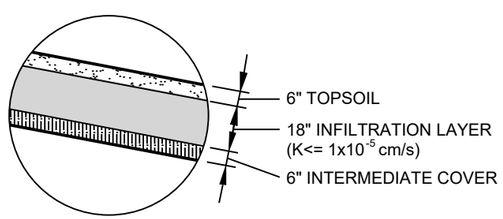
KEY MAP

NOTE:

1. EXCAVATION DEPTHS IN THE CROSS-SECTIONS ARE FROM THE ALTERNATE EXCAVATION PLAN TO ILLUSTRATE THE MAXIMUM PERMITTED BOTTOM ELEVATIONS FOR THE LANDFILL.
△2 2. ALL ELEVATION VALUES ARE IN FEET ABOVE MEAN SEA LEVEL (FT-MSL).
△2 3. THE LANDFILL WILL BE DEVELOPED SEQUENTIALLY BASED ON THE PHASE NUMBERS SHOWN. APPENDIX II-4.A DISCUSSES LANDFILL CONSTRUCTION SEQUENCE AND DEVELOPMENT IN DETAIL.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- LIMITS OF EXCAVATION PROFILE
- TOP OF FINAL COVER PROFILE



A1 TYPICAL FINAL COVER △2

NOT TO SCALE

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

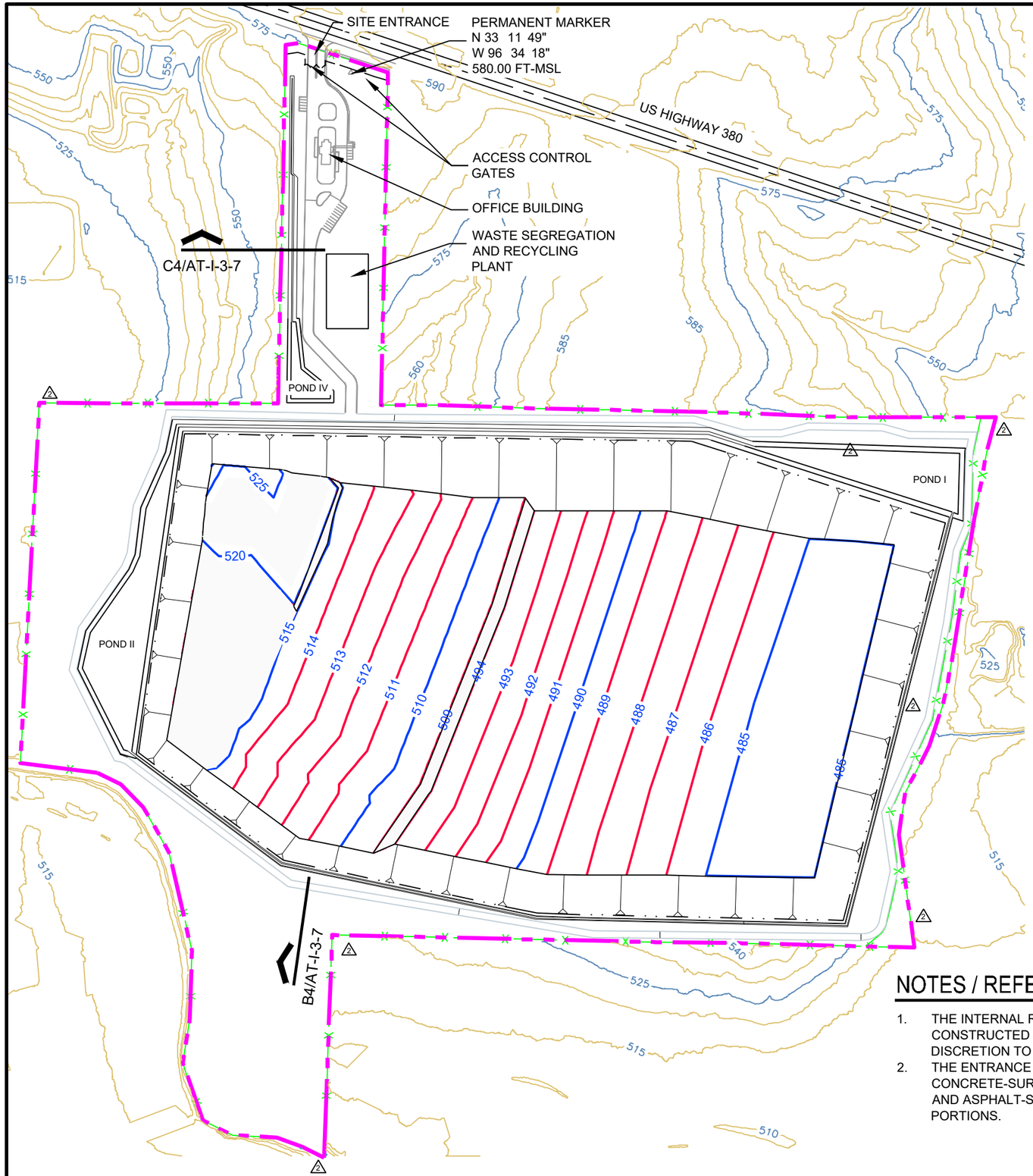
PROJECT NO.
6048.21

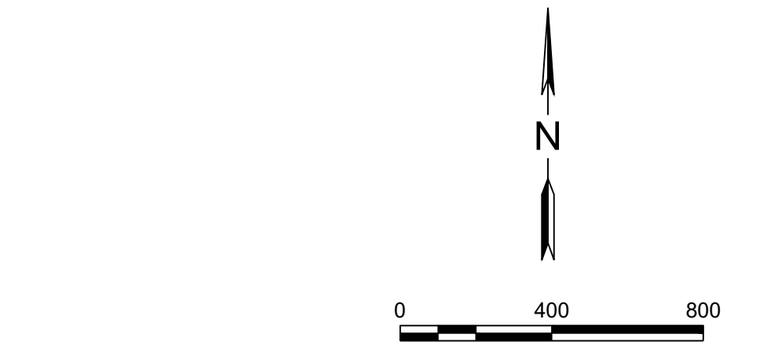
△2 June 2022 TECHNICAL NOD #1
DATE DESCRIPTION

Cross-Section D-E-E'

FIG.III-5.7

FILE NAME: A:\2021\6048.21\02_DSGN\01_DWG\050_CIVILPERMIT\6048-21-FIG-III-5.7.dwg LAYOUT NAME: FIG.III-5.7 PRINTED: Tuesday, June 21, 2022 - 8:32pm USER: afranklin

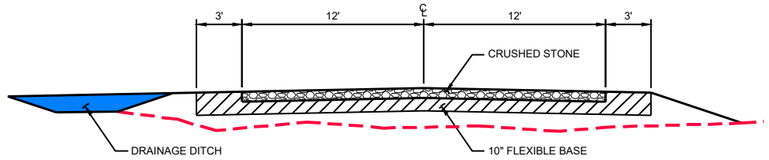




C4 TYPICAL ENTRANCE ROAD CROSS-SECTION
NOT TO SCALE

NOTES

△1. 6" 4,000 PSI CONCRETE PAVEMENT WITH #4 BARS @ 24" O.C.E.W. (ACCESS ROAD FIRELANES)
△2. 5" 3,000 PSI CONCRETE PAVEMENT WITH #3 BARS @ 24" O.C.E.W. (PARKING AREAS)



B4 TYPICAL PERIMETER ROAD CROSS-SECTION
NOT TO SCALE

NOTES / REFERENCE

1. THE INTERNAL ROADS WILL BE CONSTRUCTED AT THE OPERATOR'S DISCRETION TO BEST FIT THE OPERATIONS.
2. THE ENTRANCE ROAD WILL BE CONCRETE-SURFACED AT THE ENTRANCE AND ASPHALT-SURFACED IN THE REMAINING PORTIONS.

LEGEND

- PERMIT BOUNDARY
- FENCE
- PHASE LIMITS
- PERIMETER ROAD
- 530 EXISTING TOPOGRAPHIC CONTOURS
- 510 EARTHWORK GRADES

Parkhill

Parkhill.com

CRWC TYPE IV LANDFILL
TCEQ MSW PERMIT NO. 2278A
COLLIN COUNTY, TEXAS

380 McKINNEY C&D LANDFILL

CLIENT
Construction Recycling and Waste Corporation
2540 E. University Dr.
McKinney, TX 75069

PROJECT NO.
6048.21

#	DATE	DESCRIPTION
△2	June 2022	TECHNICAL NOD #1

Landfill and Quarry Access Roads During Design Phase I

FIG.III-5.9

FILE NAME: A:\2021\6048.21\03_DSGN\01_DWG\050_CIVIL\PERMIT\6048-21-FIG-III-5.9.dwg LAYOUT NAME: FIG.III-5.9 PRINTED: Tuesday, June 21, 2022 - 6:39pm USER: afranklin